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NO. OF SAMPLES	200+	?	163
SEARCH MODES	3	NORMAL	NORMAL
FILMCLIPS	✓	✗	✗
SUPPORTED	✓	✗	✗
MUSIC	✓	✗	✗
Inter-ACT	✓	✗	✗
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Month In View

Nick Veitch likens himself to a Spanish king or something and puts a plea in for a pint of Guinness or ten...

There was a Spanish king who spent the greater part of his life collating details of games of all descriptions, so that they wouldn't be lost to the ravages of time and future generations would be able to play them. We didn't take quite so long to round up the games for our cover feature, but I believe the result is no less significant.

You will be amazed at some of the games currently in development, and some of the projects for porting popular games from other platforms to the Amiga.

We also have some significant serious products on test, including the quite gobsmacking Network PC – now you won't have to leave your evil Windows machine collecting dust in the corner, you can easily connect it up to your Amiga. And, for those of you who haven't upgraded your Amiga yet, now you have no excuse as we reveal a whole new range of excellent value accelerators from those nice people at Power Computing.

If you are picking up this magazine at the World of Amiga show, be sure to turn to our guide at the end of news, just so you don't miss out on anything. Oh, and why don't you pop along to the bar and buy a Guinness for that nice chap with the ponytail on the AF stand...



Nick Veitch
Editor



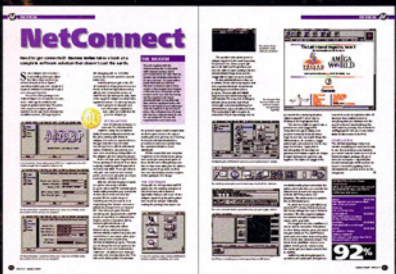
GAME ON! P18
The future of Amiga games looks rosy, as developers all over the world are coming up with some cracking new titles and ports of familiar classics.



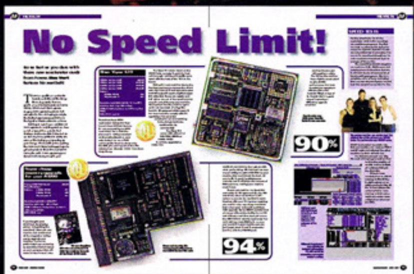
LONG TERM TEST P73
It's been around for a while, but some reckon it's still the best – *Blitz* gets the once over from one of our readers.



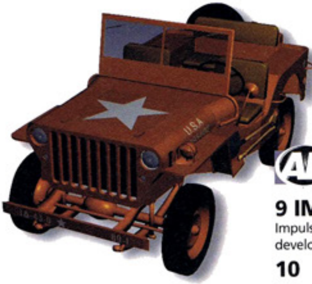
NETWORK PC P60
If you've got one of those old PC things lying around, why not connect it to an Amiga and get some use out of it?



NET CONNECT P62
Another complete solution to Internet connection, as mentioned in last month's cover feature. Now there is no excuse for not getting online.



POWER CARDS P56
Strap in and get ready for a fast ride – if you haven't done it already then now is the time to accelerate your machine. You have no more excuses!



Upgrade to version 6.0 for just $100 and enjoy a whole range of new features.

AMIGA FORMAT

CONTENTS

ISSUE 98 JUNE 1997

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- Serial port compatible with all modems and serial hardware.
- Multitasking drivers compatible with all modern comms and networking software.

Studio II £49.95

NEW PHOTOREALISM WITH CANONS

If you want to get the best possible output from your printer—better even than on other platforms—then you need the phenomenal printing power of Studio II. The package includes powerful Workbench drivers for use with your applications, plus special software that includes a professional Colour Management System and allows you to print images directly from disk in 8-bit or 24-bit precision. All popular graphics formats supported

Classic Squirrel £69.95

Fully tested with a wide range of SCSI-1 and SCSI-2 peripherals, the original "Classic" Squirrel interface supports data transfer speeds of up to 1.2Mb per second on a standard A1200 and an astounding 3Mb per second with a 68030-accelerated A1200. The Classic Squirrel plugs into your PCMCIA port and allows you to connect up to seven SCSI peripherals to your A1200 or A600.

Twist 2 £69.95

NEW LOW PRICE

Twist is the world's most successful Amiga database. Its range of powerful features coupled with its uncluttered interface makes light of all manner of tasks ranging from building a simple card file for your CD collection to implementing a fully relational business database for stock control and invoicing.



iBrowse £29.95

Try as they might, the competition simply cannot keep pace with the power and popularity of what Amiga Computing says is "still the better browser" — and that was before we added full support for frames and better colour dithering!
IBrowse always has been the most advanced Amiga web browser, and we aim to keep it that way.

Cinema 4D

NEW V3 £199.95

Cinema 4D is the award winning, easy to use raytracing and animation system for your Amiga. Equipped with a user interface that complies with the Amiga Style Guide, Cinema 4D is replete with every conceivable option, including:

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- And much, much, more!

Megalosound £29.95

This sophisticated 8-bit sampler connects to your printer port and allows you to sample directly to disk, thus enabling whole songs to be recorded with ease at a sampling rate of up to 21kHz stereo on an A1200. When sampling to ram, rates of up to 56hHz are possible. Phenomenal sound quality at a great price!

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What's up?

AMIGA FORMAT news

Carry on Imagining



Imagine 5 was good, but let's hope that *Imagine 6* will be much better.

Here's some news that will come as a pleasant surprise to a lot of *Imagine* users. Impulse are pressing ahead with Amiga development on their program and *Imagine 6.0* will be available very shortly. At the present time we have no dates or feature list for the new version but Impulse can be contacted on the following phone number: +001 612 425 0557 or at the following web address: **http://www.coolfun.com** for further details. The new version will be available under their constant upgrade program for $100 for registered users of version 5. If you don't already have version 5, then you may also get this direct from Impulse at a cost of $100.

Larry Halvorson, VP of Sales at Impulse said, "*Imagine* is one of the best-known 3D software packages on the Amiga platform and will continue to be with the support of the Amiga community. Impulse is excited about the future and the rebirth of the Amiga."

WIRED PICTURES AT YOUR FINGERTIPS





12,000 pictures on call with Wired Marketing.

Wired Marketing have just launched a new set of copyright-free image CD-ROMs. The images cover an enormous range of topics, from famous landmarks to typical business images and are all designed for print applications like *PageStream* or video applications like *Scala* or the World Wide Web. At the moment the image bank consists of roughly 12,000 images, but Wired hope to more than double that figure by this time next year.

The images come in four formats – 2100dpi JPEG and TIFF, 600dpi JPEG and 72dpi GIF, so whether you are creating posters or pictures for your website they are ideal.

However, unfortunately at the moment there is no support for CMYK JPEG files on the Amiga so you might have some difficulty using the high resolution images.

The CDs cost £69.99 each and for further details you can visit http://www.picture-gallery.com on the web or phone Wired Marketing on 01442 870749.

Unzip your A3000



Not fully fitted with ZIPPs? An AmiFAST might be the solution.

There is now a happy alternative for A3000 owners who've only got a small amount of fast RAM. Finding ZIPP chips is difficult and expensive but now there is another solution called the AmiFAST 3000. It is a board that sits over the banks where the ZIPP fast RAM goes and allows you to use SIMMs instead. Unfortunately though, the AmiFAST is of no use to those of you who already have all four banks filled because it doesn't give you the ability to add more than 16Mb in SIMMs – the maximum that the A3000 motherboard will address.

AmiFAST costs £69.95 including VAT and UK delivery and is available from Ramjam Consultants on 0118 946 5940. Email them on sales@ramjam.demon.co.uk or visit their web site at http://www.ramjam.demon.co.uk

DEVELOPER CORNER

This is a new section in News in which we devote a bit of space to a product we've seen, or got, but that has no Amiga drivers for it.



It's an all-in-one solution which doesn't currently work on the Amiga.

The product in question this month is Hewlett Packard's OfficeJet Pro 1150C. It's a cracking bit of kit what with it being a DeskJet 660C and a 24-bit colour scanner all in one unit priced at just £699. What's even better is that you can use it as a colour (or mono) photocopier without it even being attached to your machine. Unlike all the other HP scanners, this is a parallel port unit (because of the printer, I assume) that prefers an EPP port, but will work off the Amiga's standard bi-directional Parallel port.

The printer part of the OfficeJet works perfectly with *TurboPrint 5*, we have no problems there. Obviously the photocopying function of the OfficeJet works with no problems. What we can't get running is the scanner. All the scanner software we have tried either works with SCSI-based HP scanners or with other manufacturer's models – none works with the OfficeJet's scanner. So here's a nifty development idea for you. Why not contact Hewlett Packard and get a developer's kit for the OfficeJet? Their number is 01249 865511 and the devkit consists of manuals and a developer's guide (and possibly some development tools).

WE WANT YOUR STORIES!

Amiga Format wants to find out what you are using your Amiga for. Contact us if you think you have a novel or unusual use for the machine we love so dearly.

We might just come to see you so you can share your work with the entire Amiga community. For further information, contact Andrea Ball on: 01225 442244.

DES RES FOR VIEWSONIC

ViewSonic have released so many new monitors over the last year that they are moving once again.

They are looking to double their workforce (and triple their turnover of $76m last year), so the extra space will come in handy.

You'll be able to contact ViewSonic at their new address at: ViewSonic House, Fleming Way, Crawley, West Sussex RH10 2GA and ring them on the usual number: 0800 833648.

NORWICH AMIGANS UNITE!

The Norwich Amiga Users Group are looking for new blood. The Group meet every fortnight at the Belvedere Community Centre, off Dereham road in Norwich on Tuesday evenings at 7:30.

They welcome people with any level of experience with the Amiga and are a friendly bunch willing and eager to help out with problems and suggestions.

Contact them on 01603 867663 for further information.

Red Power

competition AF competition





Power Computing have very kindly given us the opportunity to give you ten copies of the *Big Red Adventure* – hot off the presses. There's no complicated question, just send a postcard with your name and address on it to Power Computing at 82a Singer Way, Woburn Road Industrial Estate, Kempston MK42 7PU. The first ten people out of the hat will each receive a copy of this 86% awarded CD-ROM game. The closing date for this draw is 1st June and all the usual rules apply.

Check your cheques

Pretium is the name of a chequebook accounting package from American firm IDD. It is designed to help you keep track of credit card charges, cheques, cash transactions and savings accounts among other things. It has just been upgraded to v1.1 and new features include:

• **An address and telephone database** that is linked to the rest of *Pretium*'s data, so that you may simply select an entry as the payee for a cheque entry.

• **Better sorting**. *Pretium* now lets the user sort their data not only by date, but also cheque number, description, amount, cleared status, memo or category.

• **Cheque printing**. *Pretium* now supports laser, inkjet and dot matrix printers for printing professional-looking cheques.

Pretium v1.1 is available for $54.95 and is counted as a free upgrade for registered users. For more details contact IDD on 001 352 373 9471, email them at idd@pobox.com or visit their website at **http://www.pobox.com/~idd**

GTI Charts March 97

As usual, Aminet CD-ROMs dominate the chart but notice that new entry straight in at number 3. Yes, the *Amiga Format* CD rocks the world!

1	(2)	Aminet Set 4
2	(1)	Aminet 17
3	(-)	Amiga Format AFCD12
4	(5)	Meeting Pearls 4
5	(3)	Amiga Magazin CD 3-4/97
6	(6)	Aminet Set 3
7	(4)	Aminet 16
8	(7)	Amiga Format AFCD11
9	(15)	AGA Toolkit 97
10	(14)	Aminet Set 2
11	(18)	Tele-Info Vol. 1
12	(10)	Amiga Developer CD v1.1
13	(12)	Aminet Set 1
14	(11)	Golden Demos
15	(44)	Streckenplaner 97
16	(19)	Personal Paint 7
17	(32)	Fun Clips 2
18	(25)	Scala Plug-In
19	(21)	Megahits 6
20	(9)	Amiga Format AFCD10

"Finding lost treasure and bravely fighting evil..."

JUST ANOTHER DAY FOR ANDY SMITH PAGE 34

Net Corner

There is a bit of a special games theme running through this issue, and net corner is no exception. There is a very active Amiga games scene on the web, which is well worth checking out if you can't wait to find out where your next game is coming from.

One of the most prolific producers of games at the moment is Vulcan Software, and they have a pretty large website to prove it <www.vulcan.co.uk>. A lot of it is still under construction, but you can still find out loads of details on upcoming games, find out how to order, and in some cases, download demos.

Another site worth popping into is ANGLE <www.iper.net/angle/>, which stands for, er, Something like Amiga Network Games something something. Essentially it is a site to spread the word about *Portals*, a MUD in development for the Amiga. When it is finished, you will be able to participate in evil multiplayer adventures on the Internet.

For getting some good prices on some old games, you could do worse



There are loads of websites devoted to gaming on the Amiga...



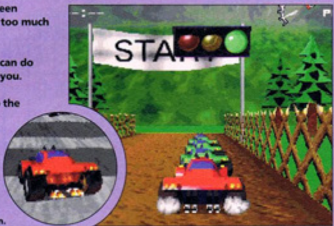
...Vulcan's lets you download patches and demos...



and gives you in-depth descriptions...

AMIGA FORMAT'S Top ten reasons to .. GET BACK INTO GAMING

1. As this issue shows, the next twelve months are probably going to be among the best ever for Amiga gaming.
2. If you've got a high spec machine, you'll be rewarded with the great games you deserve.
3. It's a great excuse to get that faster accelerator.
4. No more having to pray that your game floppy isn't corrupted – games on CD will be much easier to look after.
5. No more will you have to look on in envy as your PC-owning chums play their games, you'll have ones they can be jealous of.
6. You can start inventing excuses for why you haven't done your homework/that essay/that report again.
7. All work and no play makes Jack a dull boy (and Jill presumably finds someone else to fetch her water).
8. You've been sleeping too much lately.
9. The pub can do without you.
10. It'll help the Amiga.



Driving fast without getting on "Police, Camera, Action!" is another reason.

than to check out Special Reserve's web site <www.reserve.co.uk>, which amongst other things, also has a reasonable list of cheats. You can even buy online and save yourself a large amount of cash. Special Reserve currently have over 100 Amiga titles in stock, many of which are old classics.

If it's advice on *Chaos Engine 2* you are after check out the Bitmap Brothers website WWW.bitmaps.com. Not only is it really cool, but there is a detailed playing guide for the various levels of *Chaos Engine 2*.



and tell you how to cheat.



Audiogenic's gives you more of a press release feel...



Whereas Special Reserve just sell 'em...

The Bradford Column



One of the more pleasing aspects of the computer industry has always been its accessibility: if any individual or group has produced something wonderful then they will be judged solely on the merits of their creation. Or at least that's how it's always been. Sadly however, 'progress' is now putting diversions and obstacles on the route into the industry. Speak to the Assessing New Talent division of a major publisher and tell them you've got an original, vibrant and exciting new product and they'll take you out to lunch. Tell them it's on the Amiga and you're likely to be faced with a deathly silence – before they rush off and leave you with the tab.

Their reasons may seem logical but a look at the bigger picture suggests otherwise. It's been well-publicised that there is a skills shortage within the computer industry. That's changed somewhat over the past few months, with several multimedia publishers finally realising that they've been producing wonderful worthy works of reference that very few people actually want to buy.

As they've downsized, many of their programmers are now seeking alternative employment. The shortage that remains is content. New and original games and genres seem very thin on the ground. Yet there are still loads of amateur Amiga programmers and designers using Blitz, AMOS etc. to create games they enjoy but nobody is interested 'Because it's Amiga.'

"Amiga is still the only way an amateur can create something of commercial quality for under £300."

Which, when you think about it, is like rejecting a book manuscript because of the font or type of paper used to present it. Good games become money-spinners when they cross platforms, so why aren't people looking at the message instead of the medium?

Where else are new game styles going to come from? Yaroze? PC owners? Possibly, but Amiga is still the only way an amateur can create something of commercial quality for under £300. What would happen if *Lemmings* or *Tetris* had just been written on Amiga? I think we know the answer to that. Indeed, someone may have already created a fiendishly addictive little puzzle game capable of captivating the world (*Lemtris*?) and it's just gathering dust in a disk box in Milton Keynes.

Perhaps the answer is for someone with industry contacts to set up an agency devoted to games. He could then hawk them around publishers who would be buying the concept rather than a finished product, which is not as unreasonable as it may sound. They would just need to be educated into seeing an Amiga game not as it is but as it could be: a first draft. The author would still get his royalties, the agency could take a small cut and those multimedia programmers get employed to do the converting. Everyone's happy.

Hmm... This is such a good idea that I might actually do it myself.

Dale's looking forward to the summer when he can frolick in the fields like the little lamb he really is. The opinions expressed here are his, and not necessarily those of the all-powerful *Amiga Format*.

Show Guide



The World of Amiga show. It's gonna be big! You don't want to miss out on anything so here's our comprehensive guide.

Power Computing
119

☎ 01234 851500

From behind their huge and palatial stand, Power will be showing their new range of award-winning accelerators and expansion cards (exclusive review this issue on page 56). If you are in the market for souping up your Amiga, you should certainly pop by.

Direct Software
138

☎ 01604 722499

Direct will be showing their "Power Amiga" system, which is basically an Amiga re-housed in a tower, with lots of extra goodies. It isn't a new Amiga, but it might do until one comes along...

Amiga International
114

☎ 0049 6252 709788

The people everyone will want to talk to. What plans do they have for the Amiga? Well, hopefully they will be able to show us, otherwise there isn't much point in having a stand, is there?

Wizard Developments
134/135

☎ 01322 527800

Joining Wizard on their stand will be a host of Amiga developers including GP Software, the producers of *Directory Opus*, who might be showing off some surprising new developments. Both Greg Perry and John Potter will be there to receive your congratulations and criticisms.

Irseesoft, will be demonstrating their latest version of *TurboPrint*, and Kermit Woodall of Nova Design will be showing off *ImageF/X 2.6* and will also, hopefully, have the newly revamped *Aladdin* on display.

Gasteiner
102

☎ 0181 345 6000

Gasteiner will be showing their usual range of highly competitive products and they also have a few surprises up their sleeves.

As a special offer for *Amiga Format* readers, everyone who comes to the stand brandishing this very issue of *AF* will get a free game!

Golden Image
118

☎ 0181 900 9291

Golden Image will be showing off their complete range of add-ons for any Amiga, all at very good prices.

Guildhall Leisure
105

☎ 01302 890000

Guildhall will have a complete range of games software to chose from, including their recently re-released classics from Electronic Arts and Microprose as well as other Acid classics.

Weird Science
136

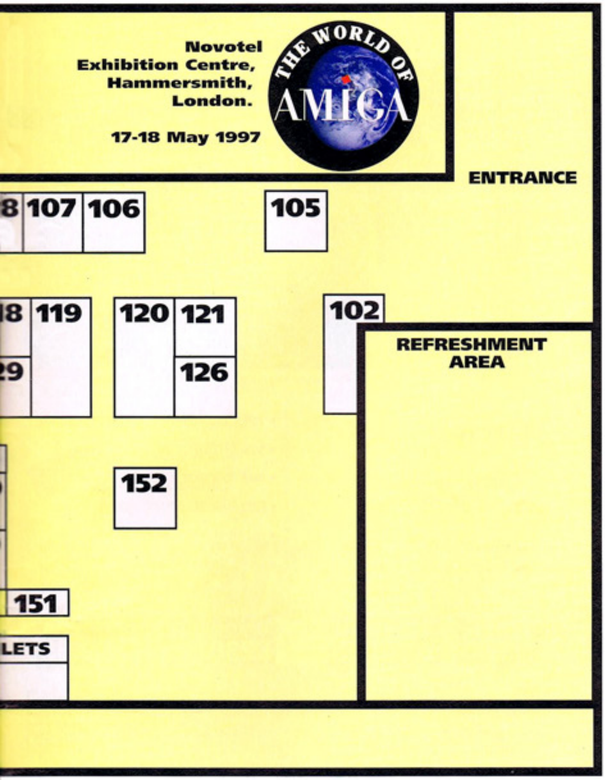
☎ 0116 234 0682

Dave Law of Weird Science reckons he will have his complete range of CDs available at the show. Good luck to him! Check out the reviews of Weird Science's latest discs on page 71. Also at the show is the rather excellent Network PC, also reviewed in this issue on page 60 – if you can't believe it's true, go and check it out.

HiSoft Systems
121

☎ 01525 718181

Masters of the web, HiSoft will have the latest versions of *IBrowse* and all their other Gold award-winning Internet software on display. They will also be showing the popular Squirrel, *Twist* and *Cinema 4D*!



COMPANY	STAND
Amiga Em magazine	112
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Siren Software	106
SNAP Computer Supplies	151
Weird Science	136
Wisedome Ltd	150
Wizard Developments	134/135

Blittersoft
120

☎ 01908 261466

Blittersoft are looking forward to a very busy show. Confirmed for their stand they have the complete range of Micronik tower products, good prices on Siamese systems, *Fusion* and *PCX* from Jim Drew (with a possible personal appearance) and Haage & Partners' *StormC v2* and *Art Effect v2*.

It's also just possible that Blittersoft will have *AWeb 3* and Phase 5's first PPC A1200 accelerator.

Eyetech
152

☎ 01642 713185

Eyetech will be showing off their brand new tower case (at just £119.95 including power supply) and they also hope to have a 16-speed CD Plus there too, along with their wide range of add-ons and hardware.

Sadeness Software
129

☎ 01263 722169

Sadeness will be promoting the latest additions to their range – *AGA Experience 3* and *The Hidden Truth* along with their other award-winning CDs.

Digita
148

☎ 01395 270273

Digita will have their award-winning range of software on display and you'll also be able to buy the latest *PPaint 7.1*.

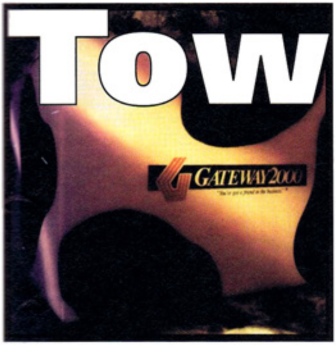
CU Amiga
139

Apparently these people produce a magazine.

PLEASE NOTE

The details here were correct at the time of going to press. However, things happen, so don't blame us if things or people don't turn up, okay?

Towards 2000



"Doh! I didn't order a Friesian! I ordered a Holstein!" – the perils of mail order cow companies.

The news that Gateway 2000 were to buy the Amiga came as quite a shock to a lot of people. Just who are they and want do they want with our machine. Ben Vost (and every other Amiga owner) wants to know...

The Amiga has a new owner! Yay! What are they going to do with the machine? Umm, we're not sure just yet. Gateway 2000 aren't willing to "dilute" the great news about their plans for the Amiga, so you'll have to attend the World of Amiga show at the Hammersmith Novotel on the 17th and 18th of May if you want to find out for yourselves first hand (call the ticket hotline on 01369 707766 for further details).

If you can't come to the show for whatever reason (but it'd better be a good 'un!), then you'll just have to wait until next month's *Amiga Format* when you can be sure we'll have covered all the details you could ever want.

At the moment, all we know for sure is that Gateway 2000's bid for Amiga Technologies has been accepted, the German authorities have OK'ed the deal

GATEWAY2000

"You've got a friend in the business."®

Continued overleaf ➜

THE RUMOUR MILL

In the absence of any concrete information forthcoming from Gateway themselves, the rumours about the future of the Amiga are flying thick and fast. Here are some of the tales we have heard, and what we think of them.

"The next generation Amigas will be based on the PA-RISC/Alpha, not the PPC."

AF says: Well, it's certainly plausible. According to other rumours, Commodore originally considered the PA-Risc back in 1993 and development was started on porting the OS to Hewlett Packard's RISC processor.

It is also rumoured that when Digital first developed the Alpha, they were casting about for a 32-bit pre-emptive multitasking OS and the only one they could find was Workbench. They approached Commodore who in their traditionally visionary style told Digital to sod off, but Digital's engineers apparently carried on reverse engineering parts of Exec to get them to run.

Frankly, here at AF, we're slightly worried that all of Phase5's obviously hard work will go down the pan if Gateway eventually announce plans to go with HP or DEC, but the sooner we move off Motorola 68k, the better.

"Gateway only bought Amiga Technologies to kill the Amiga so that there was no competition for the PC."

AF says: Even for a company that made a net profit of $250m last year, spending however much they did spend on a company just to ensure its demise strikes us as fairly odd. Why not just leave the Amiga to slowly disappear from the world on its own?

"Gateway intend just using the Amiga as the basis for a set-top box."

AF says: It's possible. Certainly Gateway are making heavy in-roads into what are called "convergence" products – PCs that are also scanners, fax machines, television sets etc. However, Gateway have bought Amiga Technologies lock, stock and barrel where they would only really need to buy the technology for a set-top box, so, although this may well feature in their plans, we would be surprised if it was the be all and end all of Gateway's plans for the Amiga.

"Gateway's only bought the Amiga for a new range of palm-top computers."

AF says: This is one of the more bizarre rumours and from a seemingly intelligent source – the Giga Information Group in California. They reckon that purchasing AT will put Gateway in a position to create a whole new range of palm-top computers. We reckon they've got us mixed up with some other company. It's hard enough to create an Amiga laptop, let alone an even smaller machine.

"Gateway's just got AT for the technology required to give them a better version of their Dimension multimedia PC."

AF says: While it would certainly make sense for Gateway to incorporate some video-related Amiga features into their line of big TV screen PCs, we don't think they bought AT just for that, for the same reason we don't believe they bought it for for set-top box technology.

"Gateway's only bought the Amiga because they think it's a really good technology that they can update and make into a world-beating system that can take on the Wintel/Mac duopoly."

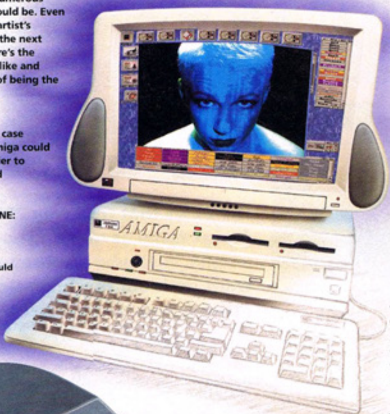
AF says: Well, we certainly hope so!

THE FUTURE... MAYBE

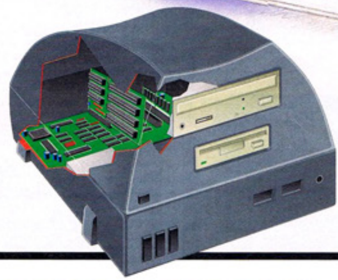
Over the years there have been numerous ideas of what the next Amiga should be. Even *Amiga Format* has given various artist's impressions of what we thought the next Amiga should look like. Then there's the Walker. Here's what they all look like and what we think their chances are of being the next Amiga.

Dream Amiga

Gateway have a tradition of nice case design, so a desktop or tower Amiga could look really nice and be much easier to expand than the screws, tabs and unmachined steel of the current constructions.
CHANCES TO BE THE NEXT MACHINE: Not bad, considering.



Dream Amiga. A big box Amiga would be the choice of a lot of people – especially for easy upgrading.



Ed

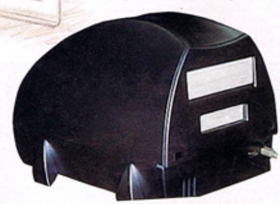
CHANCES TO BE THE NEXT MACHINE: A set-top box may well be an outgrowth of Amiga technology, but we don't believe that's all the next Amiga will be.



ED. The next Amiga, just a set-top box?

The Walker

CHANCES TO BE THE NEXT MACHINE: When asked about the chances of the Walker becoming the next Amiga Petro Tyschtchenko just laughed.



The Walker. Darth Vader's helmet? A hoover? The next Amiga?

"Amiga International has risen from the ashes to take its (AT's) place."

(apparently regulatory approval is required for German technology companies being bought by foreign interests) and now Amiga Technologies is no more. Amiga International has risen from the ashes to take its place.

The office/factory/warehouse in Braunschweig will remain, but the main office will be moved to Frankfurt and Petro Tyschtchenko will employ two new staff, a secretary and a salesman. Other than that, AI will remain fairly similar to AT, at least to start with. There is some question about what AI will do for an R&D department now that all the old Commodore gods (Dave Haynie, Carl Sassenrath, Andy Finkel, RJ Mical et al.) are gainfully employed elsewhere, but it is early days yet for the new company.

The news that there were quite a few other bidders for Amiga Technologies, or at least parts of it, came as a bit of a surprise to a lot of people, us included, but it is unlikely we will be able to find more out about these shady anonymous companies since they all went through external legal companies to approach Herr Hembach, the liquidator.

Of course, you'll be able to find out for yourself exactly what is going on at the World of Amiga show which takes place on the first weekend that *Amiga Format* is on sale (May 17-18th).

Gateway have booked a large stand there. (See our Show Guide on page 13.) As yet, we're not sure quite what they will be showing, but there will be several people on hand to answer your questions, including Petro Tyschtchenko, who needs no introduction, Steven Johns, Keith Braddick and Jim Taylor, senior vice president for global marketing, from Gateway. Hope to see you all there!

QUOTE FROM PETRO

"Thanks to everyone for all their loyalty. Your emails kept me going through the hard times of the bankruptcy when I was so depressed. I had other job offers but the loyalty of the Amiga community kept me here, trying to keep the Amiga alive!"



After finally getting a new owner, Petro catches up on his reading.

Game On!

The Amiga games market is growing up. Ben Vost looks at the games that will be taking our joysticks into the next millennium.



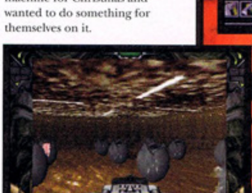
This time next year, just like on the PC, you might only be able to buy games for your Amiga on CD-ROM. This time next year, you might be able to buy commercial games solely for graphics card-equipped Amigas. This time next year, you might well be able to buy games that have internet connectivity for multi-player action. No, don't look at me like that, it's not as odd as you might think. Here you go – from next month, Vulcan Software are only releasing CD-based titles; AuroraWorks are currently working on their first title – *Zone99*, it requires a graphics card and would be happier with a sound card; *BattleDuel*, a simple but good-looking artillery clone offers the ability to play over a null modem, Parnet or TCP/IP network, i.e. over the Internet.

It seems like the Amiga games market is actually growing up. At the start of the Amiga's life, the games companies that jumped on our band wagon were innovators, breathing new life into an industry that foundered on the VCS's poor quality graphics and sound. They stole talented designers off the slackening 8-bit platforms and gained talent from kids who'd just received a new machine for Christmas and wanted to do something for themselves on it.





Three different game genres for you to drool over: 1 – *Battlecraft*, a *Warcraft* clone; 2 – *Hellpigs*, a mammoth graphic adventure from Vulcan; 3 + 4 – *The Final Odyssey*, an isometric puzzler from Vulcan. All these titles will be available on CD.



Genetic Species, first person perspective shoot-em-up from Vulcan.





JUMP SHIP

Titles like *Speedball*, *Shadow of the Beast*, *Kick Off* and *Lemmings* made the makers of other computers gasp and try to catch up. Catch up they did, and because Commodore and its successors didn't, or couldn't, make the effort to get back in the lead, the games developers we had raised to fame and fortune abandoned our machine for the greener grass of the PC and console platforms.

But now, the Amiga games market belongs once more to talented bedroom programmers. They want to create new games that give the Amiga back its wow factor, lost under a sea of samey platformers, derivative shoot-em-ups and tedious adventure games. Or prove to PC developers that their top-selling title could sell even more copies if they ported it to a quite capable Amiga.

"They want to create new games that give the Amiga back its wow factor, lost under a sea of samey platformers..."

So, we not only have new titles like *Zone 99* and *DemiStar* on the way, but also games like *Scions of Almagica*, *Forgotten Forever* and *Quake* which are to some extent or other, copies of the PC games

Continued overleaf ➡

DIG THE NEW BREED

So what sort of hardware will you need to run this plethora of new games titles? Well, for a start, you can probably forget about getting that brand new shiny gaming experience on a bog standard A1200. A lot of the new breed of games, unsurprisingly, make use of advanced hardware that doesn't come as standard on your Amiga.

RTG is fairly well-known because of the publicity that graphics cards rightly receive, but what many people don't realise is that the Amiga also has retargettable sound capability courtesy of AHI – Audio Hardware Interface. This funky little bit of software sits between your machine and whatever audio hardware you have connected – whether it be the humble Paula that has shipped with every Amiga since the dawn of time, or one of the new sound cards like Prelude. Each card is designed to have a driver made specifically to interface it with the Amiga through AHI and allows you to fine tune your audio output. Even Paula can be tortured into giving sixteen channels of sound, but this takes up valuable processor time which might otherwise be needed for the game itself.

Like most high end attachments, adding a sound card to your machine will require you to have Zorro slots available, so it might just be time to get that tower case, or buy a second-hand A4000.

All those people that want 24-bit graphics and 16-bit sound with the new generation of Amigas are actually perfectly capable of getting it for their current models with a little moolah and a few Zorro slots, and gamers will be rewarded more and more for their purchases as time goes by.



Jim (far right) and James (far left) from Aurora Works talk to Wolf Dietrich from phase5 about PowerPC ports of their games...

FACE TO FACE WITH Aurora W·O·R·K·S

AF: When do you hope to have Zone 99 finished and what will its requirements be?

We have set a time frame for late spring/early summer. The recommended requirements for *Zone 99* will be '040, graphics card (possibly required) and support for sound cards. All our games will be CD-ROM only but we are designing the games so that CD-ROM speed is not a huge issue. We also have multi-button joystick support for CD32-style joypads. Our goal is to use the advanced hardware that the Amiga market has had for some time but which has been under-utilised.

AF: Will you do an AGA version of the game?

We are not out to exclude any Amiga user just to make a point. Whenever a game design allows for AGA, we will make an AGA version.





Zone99 is a game where you have to zoom your tank around a playfield solving puzzles and shooting enemies in order to progress through the 99 zones.

AF: Why will it need to be cut down for AGA?

You have to look at our goals: system friendly, multitasking games using the OS and high-end hardware whenever possible. With Cybergraphx, we have done tests with 16-bit (65536 colours) screens and 800 x 600 playfields at a rock steady 30fps, multitasking, and flipping screens to your heart's content. It may very well be possible to come close to the same performance, look and feel with AGA, but it will only be 8-bit (256 colours), it probably will take a very long time to develop and multitasking will have to be turned off. We will try to make AGA versions that look and feel as good as the video card versions, but we may not be able to do so in all cases and when that occurs, the game will only be released for graphic card users.

AF: Why, unlike most other games companies, have you gone for the extremely high end, rather than the lowest common denominator?

Games drive hardware. I think classifying an Amiga 1200 with AGA as high end is unfortunate – the technology is over six years old! An 030/50 A1200 is still a great computer, but it should not be the 'high end' and focus of the Amiga game developers.

When new technology becomes available, we will have software that will support it. We will use the high end hardware that is available and slowly but surely, the Amiga will have her own Lara or *Turok*... it's just a matter of time.

AF: What would you like to see in a new, cow-shaped Amiga, software wise?

Update the OS with RTG, RTA, and add many improvements immediately by incorporating many of the Shareware and commercial OS enhancements that have been designed over the years (such as *DOpus5*).



More great new games coming to a machine near you soon! 1 – *Forgotten Forever*, a top-notch *Command & Conquer* clone; 2 + 3 – *Almagica: Scions of a Forgotten World*, a great semi-*Warcraft* clone with added bonuses; 3, 4 + 5 – *Flyin' High*: A great-looking texture mapped 3D racer from Italy.

WarCraft, *Command and Conquer* and, well, *Quake*.

INTOLERANCE

The *Quake* example is particularly interesting. Ported from the original iD source code, the game apparently has, if not the blessing, then at least the tolerance of its original makers who don't see the Amiga as a viable platform for a new version. Even so, as work progresses on Amiga *Quake*, commercial interest in the project also burgeons, and where there's a publisher interested, iD are very well aware that potentially lucrative royalty and license agreements cannot be a long way behind.

At the moment, the demo of *Quake* released on Aminet doesn't leave iD with the thought that they've made a mistake in choosing to ignore the Amiga. On a standard Amiga 4000/040 with 18Mb RAM, the game is unbearably slow, even in the smallest possible window. You have to be psychic to know where the next attack is going to come from and then fight not to overcompensate when you are turning on a 5 frames per second (fps) playing field. However, the version that is currently released is also a first attempt – the programming team just wanted to know if Amiga *Quake* was even possible. As reports go, the internal version (up to v0.54) apparently runs at 25fps on an 8-bit 320x256 screen – and even faster

"As work progresses on Amiga Quake, commercial interest in the project also burgeons..."

COMING SOON?

If you buy the CD-ROM version of Amiga Format, or have internet access, you'll find a splendid website called Amiga Flame (on the CD, you can access it through any of the web browsers in the -Look_here_1st!-/AF_on_the_web directory. On the net, you'll find Amiga Flame at the following URL: http://www.niweb.com/dnet/dnetPwic/amiflame.htm). This site is dedicated to new Amiga games and has been written by a guy called Philip who searches out new releases over the web and promotes them to software publishers. It's also a good place to go for links to the newest games on CD, some of which are reproduced here:

TITLE	DESCRIPTION	PUBLISHER	DATE OF RELEASE
Auto Racing	Manga style high speed race through a BladeRunner-like cityscapes	The Rios/Lebed Project	TBA
Battlecraft	Strategy		TBA
Betrayed	A *Myst* type adventure	Aurora Works	November
Black Sanctuary	A game in the vein of *Crusader: No Remorse*, only with fully sculpted digitized creatures	The Rios/Lebed Project	TBA
Breed 2001	Space action strategy	Vulcan Sofware	TBA
Cold Blood		Vulcan Sofware	TBA
Demistar	A combination of *Asteroids, Gravitar, Rip-Off* and *Choplifter* with a common theme	The Rios/Lebed Project	TBA
3D Pinball	A pinball game as if you were standing in front of it	The Rios/Lebed Project	TBA
Forgotten Forever	One of the best looking *C&C* clones	Charm Design	TBA
Fortress Of Fear	Will feature some similarities to *Diablo*	Digital Reality Softworx	End 1997
Foundation	A mix between *Civilisation* and *Settlers*	Paul Burkey	Mid 1997
Flying High	3D textured mapped arcade racing	P.U.R.E. Design	TBA

"...it would be a very pessimistic Amiga owner indeed that didn't see a rosy future for their favourite machine."

on a graphics card. However, for the time being, the game is being developed behind closed doors. The porters say that it isn't worth sticking their heads above the parapet before there is something worth seeing, and at that point, the project will almost certainly go commercial.

DOOM & GLOOM?

But *Quake* isn't the only exciting development by a long chalk. On the *Doom* tip, you also have titles like *Genetic Species* – to be launched soon by Vulcan, *Brainkiller* – by German company TitanHB, *NEMAC IV* – being put on CD by clickBOOM and *Trapped 2*, some of which you can try out for yourself on this month's CD. And *Doom* clones aren't the only new games development being done.

On the strategy/wargame front there are several projects. *Foundations*, a game being coded by Paul Burkey in between his other pressing engagements, promises to be very good-looking. Paul hopes that it will turn out like a 40% mixture of *Settlers*, 25% *Warcraft II* (a cracking PC game), 15% *Mega-Lo-Mania* and the remaining 20% of new features, unseen in any other similar game. Already in partial place are split-screens for simultaneous two player action and some of the graphics.

But probably the best-known of the "*DuneII/WarcraftII*" derivatives is *Scions of a Forgotten World* by the coding group DSP. Like a lot of other new games appearing from the leftfield, it uses very modern methods of coding to allow for play on graphics cards and with sound cards. It's multitasking and, while this demo is still a little buggy, it is emminently playable, consuming many hours of this journo's time.

These pages have shown just how many new games titles there are, and it would be a very pessimistic Amiga owner indeed that didn't see a rosy future for their favourite machine.

Continued overleaf ➡



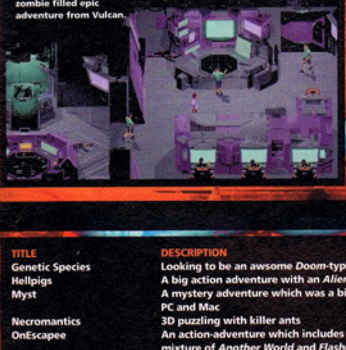
NEXT MONTH

Join us when we talk to DSP's Jimmy Westerlund and show off some other new developments coming your way very soon!

Trapped 2 **(below) the best-looking *Doom*-type game we've seen here for a long time.**



Wasted Dreams **– a zombie filled epic adventure from Vulcan.**



TITLE	DESCRIPTION	PUBLISHER	DATE OF RELEASE
Genetic Species	Looking to be an awsome *Doom*-type game	Vulcan Sofware	TBA
Hellpigs	A big action adventure with an *Aliens* theme	Vulcan Sofware	TBA
Myst	A mystery adventure which was a big hit on the PC and Mac	ClickBOOM	Summer
Necromantics	3D puzzling with killer ants	Effigy Software	TBA
OnEscapee	An action-adventure which includes an enhanced mixture of *Another World* and *Flashback*	Invictus Team	TBA
Pinball Brain Damage	Pinball	Vulcan Sofware	TBA
Scions Of A Forgotten World	*Warcraft II*-type game	Vulcan Sofware	TBA
Sixth Sense Investigations	A graphic adventure in a comedy style	Epic Marketing	Spring
Strangers	A beat'em up in the old *Renegade* style	Vulcan Sofware	Spring
The Obelisk		Aurora Works	TBA
Testament	An RPG/*Doom* type game	Epic Marketing	TBA
The Haunted	A mystery adventure	Direct Sofware	TBA
The Final Odyssey	A puzzling action adventure	Vulcan Sofware	TBA
Trapped 2	A 3D texture-mapped role playing game	Oxyron/New Generation Software	September
Uropa 2	A very addictive puzzling shoot-em-up	Vulcan Sofware	TBA
Wasted Dreams	A gigantic Alien adventure with mystery and suspense	Vulcan Sofware	TBA
Y3D	A *Comanche*-like flight simulator and with a mission system similar to *X-Wing*	Black Blade Software	Spring

VULCAN SPEAK...



We spoke to Vulcan Software's Paul Carrington, who is signing up new game developers as fast as he can find them all across the world, and who has made the unprecedented decision (in the games market) to go solely CD.

AF: What prompted the move from diskette to CD-ROM?

Basically there were three reasons:
1. From a developer's point of view it is so frustrating catering for disks. Disk swapping limits the amount of graphics, speech and music, etc. which all reflect the game's design. We can make hard drive-only games but then disks become storage devices and if you need a lot of them it makes far more sense putting all the info onto one fairly secure medium – namely CD.
2. Vulcan believes the Amiga needs a boost for games software. We intend to publish not only good big titles for Amiga CD but incredibly high quality hardware-intensive titles as well ('030+, 8-16Mb RAM, AGA/CGFX CD-ROM). This will ensure future Vulcan Amiga titles can compete with other formats, namely PC CD-ROM. This also means developers will once again be able to cater for the Amiga and push creativity to the full, it even allows ports to other platforms from Amiga-based software instead of the calls for the reverse.
3. The world-wide wholesale Amiga market is diverse, many retailers and wholesalers (especially in Europe) are not willing to stock Amiga floppy games any more due to the old hassles of corrupt disks and piracy. They have a great preference for simple CD-housed titles (simple in packaging and storage, not quality of game) that can be placed on their shelves next to PlayStation CDs and PC CDs – there is also an incredible demand from users who want new commercial games software on CD formats.



AF: Are you concerned that this might lead to falling sales?

When users realise the biggest Amiga publisher around is making incredibly high spec MUST HAVE Amiga games for CD only – like *Genetic Species, Hell Pigs, Uropa2, Breed2001, Wasted Dreams* and *The Final Odyssey* – they will have no choice but to upgrade to a CD drive or go without. CD-ROM drives are very cheap these days with some 2x speed units selling for under £70. Let's face it – Amiga users have to either upgrade and enjoy the future or let the Amiga market die before their very eyes.

AF: How many games will still be available on diskette?

Probably none. We do have some titles still in development that don't warrant a CD release such as expansion disks and a two disk "all Amiga" football game but after that everything will be CD only.

AF: We have also heard that Vulcan is negotiating to sell The Mini Series via retailers again. Is there anything else you can tell us about this?

Indeed. We have recently embarked on a world-wide campaign to get as many retailers around the world stocking our Amiga titles. The response so far has been good (outside the UK) and our MiniSeries and Future MegaSeries (CD) will be available not only direct from Vulcan Software's mail order company but also from all good retailers around the world.

With regards to the UK we have been systematically contacting all chains and independents to get them stocking Vulcan's Amiga titles ready for the big revival. So far, our major stockists in the UK are Direct Software and Premier Mail Order.

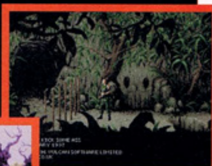
AF: Regarding the Gateway 2000 purchase of Amiga. If possible could you give me your reaction to the purchase.

I am delighted, mainly because the looong wait is over! I hope that Gateway fast release two types of Amigas into the market place and back their wares with advertising campaigns.

In my opinion, the machines should be:
1. An Amiga targeted at the whole family – giving mums and dads a choice when buying a family computer.
Ideally it would be a nice AGA, '030-powered, 2Mb chip, 8Mb fast machine with a 500Mb hard drive and monitor. It should come with Internet software and a modem for about £300.
2. Specialist graphics machine AGA/CGFX, '060-powered, 2Mb chip, 32Mb fast machine with 3D accelerator, 1Gb hard drive, 4x CD-ROM drive and multiscan monitor preferably in a tower case for around £1000.











Vulcan look set to dominate the Amiga games market through this year and the next with new coding groups being snapped up at a phenomenal rate.

These screenshots from *Wasted Dreams, HellPigs* and *Genetic Species* show just how good-looking Vulcan's new games promise to be.

Atari & Apple 2 Emulation



Simon Goodwin explores emulation of 8-bit Apples and Ataris and two new commercial offerings from Blittersoft.

The ink was still drying on our *PCX* review when two more emulators arrived on the scene. *A][* and *ACE*, developed by *Emplant* impresario Jim Drew, emulate 8-bit Apple and Atari computers. They are just a cut above most PD and Shareware offerings and reasonably priced at only £19.95.

But with three free Apple emulators already available, a commercial rival faces tough competition. David and Stephen Firth's *Atari800*, reviewed at Christmas, is also PD but very slow, demonstrating that Atari emulation is a tough nut to crack.

REQUIREMENTS

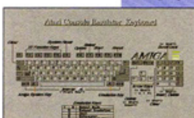
The new emulators require at least a 68020 processor, taking advantage of its speed and ability to read misaligned words. Both emulators can run in 1Mb of RAM, but prefer 2Mb, preferably 32-bit fast RAM, for good performance. They use the American keymap rather than the UK Amiga one, so the 'quote', 'hash' and 'at' symbols are not where Europeans would expect them. But all the other keys appear in their usual Amiga positions.

ACE and *A][* need Amiga Kickstart 2.04 or better, and do not include the original system ROMs. The Atari emulator has ROM emulation, but to run Apple 2 software you'll need the system and BASIC ROMs from a real Apple, or as a file from CD or the Internet. Sound, colour and mono displays are emulated.

8-bit Ataris and Apples were produced for a decade from the late seventies and periodically tweaked to boost performance and sales. Jim Drew's company, Microcode Solutions, set out to emulate the Atari XL and XE, Apple 2C portable and the 2GS super-Apple, as well as the original machines.



***ACE*'s monitor delivers a wealth of undocumented detail.**



***ACE* maps Atari keys to a US Amiga layout.**

AFCD14: IN_THE_MAG/Emulators

ACE

The *Atari Console Emulator* – *ACE* for short – is written by Joe and Mike Fenton. Don't confuse it with the big, slow '*Atari Computer Emulator*' written in C for Unix boxes.

On the Amiga, *ACE* challenges the Freeware *Atari800*, another Unix conversion. *ACE* makes full use of Amiga sprite and sound hardware, and it shows. Processor emulation is written in machine code rather than C, giving a colossal speed advantage.

In BASIC, *ACE* can loop 10,000 times in 14 seconds at standard settings, compared with 48 seconds for the same test with *Atari800* – about 30 per cent of the speed of the real thing, on the fastest Amiga currently available! Keyboard response is instant with *ACE*, while it lags on *Atari800* – although the new release 0.6 is some improvement.

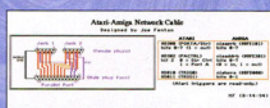
Selecting 'unlimited' speed on a Cyberstorm 68060, *ACE* runs the same test in under four seconds – three and a half times faster than a real Atari, equivalent to a 6502 at over 6MHz, and ten times the speed of its Freeware rival. *ACE* delivers full Atari performance on any 68040 Amiga, and performs respectably on a 68030.

Some of the speed of *ACE* in BASIC comes from passing arithmetic calculations through to the Amiga. Pressing right Amiga and M toggles this, but the difference is not just speed: PRINT 1/9 gives 0.11111111 (correctly) by default, but 0.121951219 thereafter! This suggests a BCD emulation bug, but all is well if you leave the default setting.

SOUND AND GRAPHICS

ACE is multitasking, although like *A][* it uses a custom screen so you can't grab images as you could with a standard Amiga window. You can run two at once, and prioritise emulators for best multitasking performance. The defaults are well chosen.

Like *Atari800*, *ACE* supports ECS, but makes best use of the extra colours and improved sprites of AGA. Some Atari programs re-use sprites but *ACE* does not emulate this correctly, so a horde of horsemen in *Necromancer* appears as a vertical column, rather than a scattered group. *Atari800* gets this right, but at great cost in speed as it renders each sprite into the background.



Three plugs, software, solder and lots of wire link the Atari and the Amiga.

Qix looks and sounds fine but collisions between the *Qix* and the player were ignored, ruining the game. *Centipede*, *Adventureland*, not-so-super Mario's 1981 Nintendo debut *Donkey Kong* and the immortal *Star Raiders* all run perfectly.

Sound emulation is extremely impressive – the best of any 8-bit emulator on the Amiga, and practically indistinguishable from the real thing, except that it's in stereo! To manage this, *ACE* uses all four of the Amiga's sound channels.

KEY FEATURES

The Amiga function keys emulate START, RESET and so forth on the Atari, with Right Amiga and other keys used to control emulator features. A startup menu appears on a custom screen when the emulator is launched, and a help screen shows the layout and assignment of Amiga keys.

Configuration is essential. Some Atari disk programs need the 8K of memory occupied by the cartridge slot, while others need BASIC. A few are fussy about the ROM version – *ACE* supports the original Atari 800 and 400 ROMs, although it has ROM emulation good enough for most games, but not BASIC.

ACE menus feature the XL and XE models as well as the original Atari 400 and 800; the main difference is the amount of memory free for programs. It supports European PAL and American NTSC display formats, which have slightly different timing on an Atari, as on Amigas.

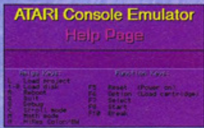
You can preset these options with Icon tooltypes, or adjust them on a Workbench control panel, much like those used with *Shapeshifter* and *PCX*. Other controls configure serial, printer, cassette and disk file re-direction to use Amiga hardware or Atari peripherals, via an adaptor.

FILING

ACE supports up to ten simulated disk drives and re-directs Atari tape CSAVE and CLOAD commands to an Amiga file requestor. *ACE* recognised all the disk, file and cartridge formats I threw at it, but some later releases are incompatible with the Atari 400 ROM it uses or emulates.

If you're confident of your hardware skills you can link the emulator to a real Atari system with a cable from the Amiga parallel port to a couple of the all-purpose Atari controller ports. The documentation includes a circuit diagram and programs in 6502 and 68000 code to manage each end of the net, but you must type the 6502 code into your Atari to get started.

The Atari has four controller ports, but the Amiga has only two. Switched joysticks and CD32 controllers are supported, but unfortunately not analogue joysticks or paddles, although the Amiga mouse can emulate the first two Atari proportional controllers.



ACE is controlled with RIGHT Amiga and function keys.

Documentation is a decent AmigaGuide with a keyboard graphic. I'd prefer printed documentation, with more discussion of compatibility and optional combinations, but got it working with a little trial and error – more related to my dim memories of the original machine than emulator problems. Amiga B calls up an impressive-looking but sadly undocumented built-in 6502 code debugger.



Defender was born on Atari hardware, and it shows.



Necromancer makes great use of Atari graphics and sound.



In 8K, *Star Raiders* makes *Elite* on the BBC look decidedly bloated.

ACE

DISTRIBUTOR: Blittersoft 01908 261466
6 Drakes Mews • Crownhill Industry
Milton Keynes • Bucks • MK8 0ER
PRICE: £19.95
The other emulators are on our CD and in Aminet's misc/emu directory.

SPEED: ●●●●○
Impressively fast.

MANUAL: ●●●●○
No monitor details.

COMPATIBILITY: ●●●○○
Needs some work.

VALUE: ●●●●○
A lot of work for the price.

OVERALL VERDICT:
A very promising debut.

83%

APPLE



Arctic Fox – Apple's colour *Battlezone* (ish).

A]\[is Mike Fenton's Apple 2 emulator, bundled with *ACE*. It can emulate a 48K Apple 2 with a language card and two disk drives, but needs Apple's 12K ROM image. Cassette files go directly to Amiga drives; there's no handler for genuine Apple media. One bit sound is supported.

Apple game paddles are emulated with the mouse or numeric pad. Neat icons appear momentarily when you change these, or the speed of emulation, with function keys. The AmigaGuide is skimpy – the monitor is not documented at all – but compatibility is good, and almost everything I tried worked first time.

FREE APPLES

The greatest challenge to *A]\[* comes from Kevin Krillian's *Apple2000*, a very competent emulator which has been in free circulation since 1994. At one point Utilities Unlimited demonstrated it as the promised 'Apple 2 module' for *Emplant*, but that deal fell through.

Apple2000 is on the *C64 Sensations Volume 2* CD, with the required ROM image. It's also on Aminet but in that case you must get the ROM separately. Like *A]\[*, *Apple2000* demands at least a 68020, Workbench 2 and 900K free RAM. I had to disable the 68060 data cache momentarily during startup to prevent sporadic gurus. Speed can be unlimited or configured from half to double normal, in 50% steps.

The author recommends a 25MHz 68020 for full speed, and a two-button joystick for compatibility with real Apple sticks. Real Apple joysticks use proportional controllers, rather than



Still pictures simply can't do justice to *Eidolon*'s 3D tunnels.

APPLE HARDWARE

The Apple 2 was a very early home computer, introduced at the end of 1977. The previous Apple model was a bare board which sold only a handful of units, but the Apple 2 was a much more professional – and expensive – offering, with a neat case, keyboard, internal power supply and expansion slots. The only obvious omission was a TV output, skipped to avoid the need for Federal Communications Authority approval, but readily available from other firms, at least in the USA.

For its day, the Apple had some quite remarkable features, including 16 colours (at a VERY chunky 40 by 48 resolution), high resolution colour graphics (its 280 pixels per line were unprecedented in a 1970s micro, though small beer today) and support for up to 48K RAM.

Apple Hi-Res gives six colours from under 8K; a zero byte gives seven black pixels. Adjacent set bits come out white, but odd and even bits in groups of seven appear orange and blue, or purple and green, depending on the setting of the eighth bit! It's MPEG writ tiny; designer Steve Wozniak brilliantly exploited TV display limitations.

Disk drives soon arrived, although the Apple never used a conventional disk controller, relying on Woz's software and an eccentric but effective interface made from cheap 'glue' chips.

It is possible to read Apple disks on an Amiga, using the obscure GCR decoding scheme, but it's easier to grab files from the Internet or from CD. The PD utility *Disk2File* reads Apple DOS 3.3 disks from an Amiga 1020 drive.

Apple disk image files are about 140K in size, accessed at authentically slow pace. *Apple2000* comes with *AFID*, a utility to manipulate files inside a disk image, and reassuringly shows the 'track' number being accessed as it goes along.

Amiga-style switches. If you've already got a proportional controller *Apple2000* can take full advantage of it, and this can make all the difference to emulation of some programs.

My stopwatch revealed that *Apple2000* was almost four times faster than *A][* on simple BASIC, although *A][* almost caught up on a Hi-Res graphics test. At best *Apple2000* ran eight times faster than a real Apple on my Cyberstorm, with good software compatibility.

THE OLD A2

Richard Skrenta's *A2* was one of the earliest Apple emulators for the Amiga. It's supplied in source form, with a sample disk image which also works with other Apple emulators.

A2 is entirely written in C, which makes it very slow. It incorporates a monitor with useful memory, file and 6502 debugging options, and also supports official 6502 and 65C02 instructions, Apple DOS 3.3 and the later ProDOS.

A2 can emulate a 16K language card as well as the main 48K RAM of an original Apple 2, with integer or 'Applesoft' ROMs, but these are not included. There's software to transfer ROMs and disk images. *A2* is slow and a bit hard to use, even though key ROM routines are re-written for speed.

AppleOnAmiga is another early effort, this time with source in Modula 2. Like *A2*, it's incomplete and documentation is scarce – unless you're fluent in Modula – but *A2* is free and has some features which might repay the interest of programmers.

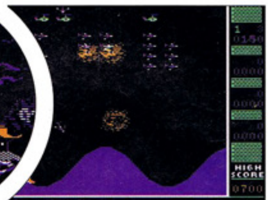
VERDICTS

A][works fine but *Apple2000* is better in some respects, and free – see *A][* as a 'free gift' with *ACE* and you won't be disappointed. The menus describe *ACE* as version 0.1 and it's still early days. It ran half the programs I tried, giving a scrambled screen or messages on the rest. When it works, it's awesome – technically one of the most impressive 8-bit emulators on the Amiga, capable of running excellent software even by 1990s standards. Further development should improve compatibility; I'd really like to be able to use analogue joysticks and paddles.

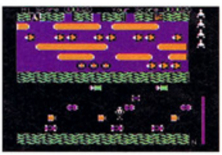
For emulator enthusiasts and former Atari 8-bit owners, *ACE* is already worth getting, and has the makings of a classic emulator.



***Apple2000* reports the 'disk' track in use as *Karateka* loads.**



***Wavy Navy* is Apple *Invaders but* in a heavy swell.**



***Frogger* shows the quirks of Apple graphics.**



The early Apple version of *Choplifter*.



***Rescue Raiders*, showing *Apple2000's* disk track display.**

NET CONNECTIONS

APPLE 2

http://cie-2.uoregon.edu/~nparker
ftp.uni-kl.de /pub/apple2

ATARI

ftp://atari.archive.umich.edu/atari/8bit/
http://www.signus.demon.co.uk/david/atari/atari.html
ftp://ftp.hackerz.com/hackerz/atari/jellystone/

ALL AMIGA

http://www.pncl.co.uk/~martinc/emulators/

A][

DISTRIBUTOR: Blittersoft 01908 261466
6 Drakes Mews • Crownhill Industry
Milton Keynes • Bucks • MK8 0ER
PRICE: Free with *ACE*.
The other emulators are on our CD and in Aminet's misc/emu directory.

SPEED: ●●○○○
Quick '040 required.

MANUAL: ●●●○○
Rather skimpy.

COMPATIBILITY: ●●●●○
Generally good.

VALUE: ●●●●○
How can you compete with £0?

OVERALL VERDICT:
***Apple2000* blows it away.**

71%

NEXT MONTH

Next month I plan to check out the burgeoning range of game console emulators for Amiga owners.

guildhall leisure services limited

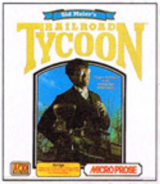
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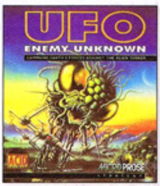
Silent Service II
The all-new Silent Service II. A state of the art simulation of Submarines in World War II. Outstanding graphics and digitised photographs depict enemy ships with uncanny realism.



FIFA Soccer
The classic and best arcade action football game



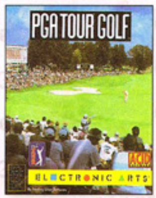
F15 Strike Eagle II
A great flight simulator that recreates the high tech surroundings of the USAF's premier dogfighting strike jet



UFO
You are in control of Xcom an organisation formed by the world's governments to fight the ever increasing alien menace. Use your forces to fight the alien terror and devise a strategy to save the earth.



Wing Commander
You're a starfighter pilot, the best of the best, but nothing in your training prepared you for action this hot.



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An accurate and addictive golf simulation. Includes 3 authentic courses.



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The notorious management strategy game where your objective is simply, to become the best.

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SCREENPLAY



Andy Smith

The steady trickle of games that are coming through could well turn into a flood if the number of games we've got to preview are anything to go by and that can only be a good thing.

Ask any of the developers who've got games coming and they'll confirm that slippage is the bane of their lives. A game is planned and scheduled for a certain release date and then problems occur and the game 'slips' past that release date. Still, as long as the games do eventually appear and they're good enough we'll just have to put up with it – all good things come to he who waits and so on.

But back to the here and now. Check out what's coming and what has already arrived in the office and enjoy!

AMIGA FORMAT'S REVIEW POLICY

WHAT OUR REVIEW SCORES MEAN

Every month we scour the world's software houses for the latest and greatest Amiga games. We try to ensure we keep you as up-to-date as possible and we'll stop at nothing to bring you the best, definitive, no-nonsense reviews of the games that matter.

90+%	The crème de la crème. Only the very best, most playable and original games are awarded an AF Gold – the most highly prized rating there is.
80-89%	These games are very good, but due to minor flaws are not the finest examples of their genre.
70-79%	Good games which are worth buying, especially if you have a special interest in a game type.
60-69%	Average releases with somewhat limited gameplay and appeal. Games in this category tend to be flawed.
50-59%	Below average games which are unlikely to impress your mates or your wallet. Avoid.
40-49%	Overwhelmingly poor quality games with major flaws and appalling gameplay.
Under 40%	The absolute pits.



We know it's coming, but just when then eh?



Vulcan have picked this one up, find out when you can too...



Nice pussy cat. Easy pussy cat. Good pussy cat...

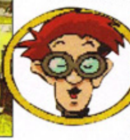


Go through the door. Go on get a move on now...



"Follow the yellow brick road..." the adventurers realise that singing songs only attracts baddies.







Full review of this brand-new CD-ROM adventure game...







Another wodge of games made by you come under our critical eye...



Phew! Finally you'll be able to finish the game!

Previews

Andy Smith checks the progress of all those Amiga games that are due with us Real Soon Now...

The Haunting



If we can play games with quality graphics like this then we're surely in for lots of fun.

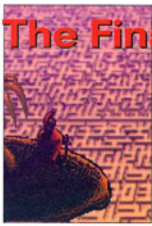
Direct Software ■ 01604 722499

This is a multi CD (it'll be on five of them in total), Cluedo-style murder mystery game. Although it is aimed at high-end Amiga owners (the game features some fabulous graphics that have been fully rendered in *Lightwave* plus real video footage and spoken dialogue), Direct might do a half-screen '030 version.

The game has still got no fixed release date because Direct are keen to see how their Power Amiga takes off. There's even talk of launching the game at the same time as the machine which is a very good thing because it's always nice to have a killer game to kickstart a new machine onto the market.

Direct have been very busy though because they've also got the thrilling adventure game *Phantasmagoria* waiting in the wings (more news and pics just as soon as we can folks...).

The Final Odyssey



The piper at the gates of dawn? No it's the centurion bloke at the start of the game!

Vulcan ■ 01705 670269

This game came to us out of the blue when it landed in the offices under the name *Enigma* (we've given up waiting for that other *Enigma/Atrophy/Atrocity* game – like we've given up waiting for *Championship Manager 2*). It's been coded by an Australian chap and the demo we played was very impressive. It's an isometric 3D puzzle/adventure game in the same mould as *Chaos Engine*.

As you can see from the screenshots it's a looker alright and as we reported back in *AF91* 'Publishers should be beating a path to Pete's door...'. Well, they did and Vulcan (bless 'em) have picked this one up. Expect to see the game in a couple of month's time (all things being equal and with a good tail wind...).



Hell Pigs



Spooky things are afoot in *Hell Pigs*. This is an under 18 piccy.

Vulcan ■ 01705 670269

Never ones to shy away from controversy, Vulcan have decided to rock the establishment and publish this 18 certificate graphic adventure.

Thankfully the game's going to be available on CD-ROM as well as floppy because it's looking like it's going to be the biggest game Vulcan have published (apparently it fills something like 22 floppies!). The *Hell Pigs* are, apparently, a bunch of mercenary hardmen called in to investigate the mysterious happenings following a recent alien visitation (like you do). Again, development delays have caused some slippage – this game was due to be released at the start of the year on floppy with the CD version following shortly afterwards. As it is we can expect to see the game later on in the year.



Testament

Epic ■ 0500 131486

More *Doom* inspired shenanigans, this time with a Germanic background. You're running around a graveyard shooting zombies and all manner of spooky creatures (big, floaty eyes etc.).

We've played around with this quite a bit and can report that it's very fast and very smooth. We can't guarantee that the game's going to make its May release slot however but expect a full review either next month or the month after that (or the...).



A floating eye baddie buys the farm. This is fast, smooth and a little bit eerie. Gulp. Behind you etc.

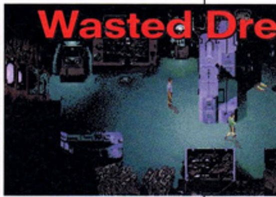
Wasted Dreams

Vulcan ■ 01705 670269

Previewed only last month (on the same page as *Castle Kingdoms*, reviewed this issue) is this graphic adventure with erm, alien involvement. Sounds familiar? Hmmm. It may have the same kinda theme as *Hell Pigs*, and it may well be a graphic adventure too but the two games are very different.

Wasted Dreams is another biggie however, coming in on some 12-14 floppies, but here one or two players can join in the fun – there's even a DeathMatch mode – and enjoy the fully animated sequences of the game's characters.





More alien intrigue in *Wasted Dreams*. I don't know about you but I wouldn't go in!

The Strangers

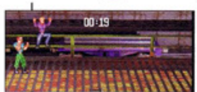
Vulcan ■ 01705 670269



As well as *The Final Odyssey*, Vulcan have also picked up this little number. This one comes from Slovakian developers Ablaze Entertainment. As you can see, it's a beat-em-up.

One, two or even three players can take on the baddies in the fine old tradition of 2D sideways scrolling beat-em-ups. Jump, kick and knee your way through the levels using whatever comes to hand to inflict heaps of pain on the baddies. Enough! You know what a beat-em-up's like, so I'll just leave you with the knowledge that Vulcan are intending to launch this 'real soon now'.

Player Two enters the synchronised high kicking team – and gets one in the seat of his pants for his trouble.



No, he's not particularly happy, he's just winding up for a hurtin' roundhouse kick. Watch out combat trouser bloke.

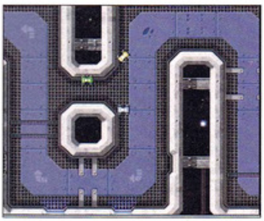
Max Rally

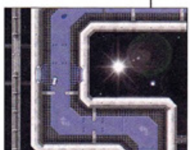
Fortress ■ 01902 834065

Fortress's first game is an overhead racer. It may look a bit like *Supercars* or *Micro Machines* but Fortress are swift to point out that their game's nothing like anything that's come before.

Originally scheduled for an early '97 release, *Max Rally*'s slipped until the start of the summer now (probably July) as it's undergone a few cosmetic changes. We've finally managed to get our hands on a playable preview version of the game and early reports are good. It's fast, good looking and plays well. The demo we had only had the one track, but that was full of jumps, holes and horrendous hairpin bends. Good stuff.

There will be some 30 tracks in the finished game which supports up to four players – when you're racing the chap in the lead wins a point if he makes it to the screen boundary, in a way that's reminiscent of *Micro Machines*. As mentioned before, it plays a lot differently so don't go thinking it's just like that aforementioned game (good though it is and all). Full review to follow very soon...





Overhead multi-player car racing action in *Max Rally*. It's not like *Micro Machines*. Oh no.

Kargon

Epic ■ 0500 131486

Despite the fact that I said this game was due in March it is, and always was, due in May (very soon now).





Choose your character and prepare for battle in some dark, dank dungeons.

It's a DeathMatch in dungeons game as you rush around trying to kill anything that moves using all manner of spells and such.

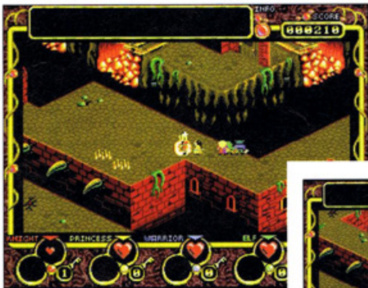
It looks good, and you really can expect a full review next month. We hope. Ahem.

Castle Kingdoms



Finding lost treasure and bravely fighting evil is just another day at the office for... oh hang on, it's **Andy Smith**...

After a very promising start with *Tin Toy Adventure* (*AF89* 79%), Mutation let us all down with the not very good *Tommy Gun* (*AF94* 50%). *Castle Kingdoms*, sees them going some way towards redeeming themselves.



Your knight takes a bit of a pasting as he takes on a green gremlin at the start of the mission. At least he's got the key though, he'll need that...

It's an isometric 3D action adventure game, set in a (spook!) castle. Or several of them to be completely correct. You're controlling a party of five adventurers (Knight, Warrior, Wizard, Elf and Princess) who have to search each of the game's castles in an attempt to recover five hidden gem stones. Moving your party through the game follows the familiar formula of one character being the leader (and therefore directly under your control) and the other members following the leader as he/she moves around. And of course, all of the castles are populated by baddies.

A large variety of these baddies there are too. Some come running out of doors, some hang around in windows and things, taking opportunistic pot-shots at you as you wander through the castle and others just seem to appear out of nowhere. Missing the pot-shot chaps is not too much bother because it's usually just a matter of timing your way past them – bearing in mind that your party move at different speeds. But tackling the other baddies involves shooting at them.



Get the character with the key to go through the door first.

Each character is armed with a weapon of different range, so you merely pick the character you want and get them to shoot. Unfortunately the rest of your party are too dumb to join in the fire-fights so you're constantly on your own when it comes to battles.

> **"Unfortunately the rest of the party are too dumb to join in the fire-fights so you're constantly on your own when it comes to battles."**

Other dangers exist but they're not too much trouble because you can usually walk round them (spikes out of the ground and things like that) but you do have to bear in mind the mindless way the other party members move, so there's always the danger they'll go wandering straight into the spikes that you've just carefully skirted round.

Contact with any of the baddies will, naturally, harm your character and their state of health is indicated by a red heart under the character's name. Each time they take a hit, the heart reduces in size. This is a handy, at-a-glance way of knowing who's closest to death and the character in most need can then be taken in hand and led around the level to pick up the bonuses that are lying around. Bonuses include bits of grub that restore health and amulets and potions that have various effects, ranging from protecting the wearer for a short while, to increasing the shot power of weapons.

As well as bonuses there are other essentials that need to be collected – these are usually keys that are dropped when you kill a baddie



The second castle and your team's been reduced to er, one. He's not very healthy either. Collect the key and look for a locked door, but I don't hold out much hope...



All that are weak are indeed doomed. It just so happens that your bunch of adventurers are the weakest to be put in a game for a long time.

but there are other things that need to be activated in order to progress. Switches on the walls activate teleports that take you to another part of the castle.

So that's about your lot really. And sadly, the total isn't more than its sum parts. The game just doesn't work as well as it could. One of the most annoying parts of it all is the way baddies keep re-appearing. You see a green blob come out of a door (no, really, a blob) so you get your current character to the front of the pack and blast away at the blob. Finally it dies when it's a couple of pixels away and hey! Presto, another blob comes flying out. This tends to make progress very tedious, especially when combined with very weak shots at the beginning and the amount of damage the baddies can cause.

Eventually you end up playing the game by just taking the one character and getting them to run around the level as fast as possible. Obviously this doesn't work too well and you tend to lose all the other characters (through being killed by the baddies, not by being left behind) but it's worth it because there are other gameplay features that can be employed to give you a bit of an edge – finding a teleport for example then transports your whole party, no matter where they were to the start of the next part of castle. This isn't a bug as such and it's easy to see why Mutation have done this but it's just a feature that screams out to be exploited.

I tried again and again to play the game with a bit of pre-planning, a bit of thought. By moving cautiously, taking the baddies out as best as possible before any damage can be inflicted, getting the right characters to pick up the right bonuses and I was just left with a very empty feeling. It's not as if the game is dreadful, there's plenty of adventuring to be done because the levels are big enough and there's plenty of shooting action (and treasure to pick up, just for the hell of it really). It's just that it has so much more potential.

By simply addressing a few fundamentals, Mutation could have made this a whole lot more fun – it could so easily have been like a *Valhalla* game with shooting instead of puzzles. Sadly it just doesn't get you fired up at all.

Even just making the characters different by noticeably changing the shots for example – especially when it comes to fighting at the start of the game – would have made the game a whole lot more involving.

As it stands *Castle Kingdoms* is an alright game that doesn't manage to come together as well as we'd all hoped and consequently just ends up filling the gap between *Tin Toy* and *Tommy Gun*.



That switch on the wall is very likely going to activate that pentangle teleport. Throw it!


Gulp. Scary monsters and super creeps lie within – and this is just the first castle! Things can only get worse.


Collect keys, go through doors, shoot baddies, find exit. You know the score.



Eek! A blob. Kill this one off and about three seconds later another's going to appear from behind the portcullis. Annoying? It sure is folks.



PUBLISHER: Mutation Software 01705 672616
PRICE: £12.99
VERSIONS: A1200
REQUIREMENTS: 1Mb
RELEASE DATE: Out now

GRAPHICS: ●●●○○
Not half bad at all.
Not superb but workable.

SOUND: ●●○○○
Nothing special going on in this department however.

ADDICTION: ●●○○○
Hmm, you'll have to be very dedicated to find this addictive.

PLAYABILITY: ●●●○○
Very easy to pick up and play but hard to play as intended.

OVERALL VERDICT:
Not a disaster exactly but not a great deal of fun either!

63%



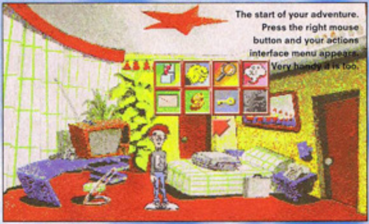
Big Red Adventure



Terrible gags and bizarre plans to steal the Russian crown jewels. Andy Smith's off adventuring again...



During your tour of the Kremlin museum you spy the Tsar crown. Of course, you then decide to steal it.



The start of your adventure. Press the right mouse button and your actions interface menu appears. Very handy it is too.

Just one example of the terrible gags in *Big Red Adventure*: Leo Tallstory's typewriter, which he used to write his famous novel War & Peacemaker is on show at the Kremlin museum.

And they don't get any better during this graphic adventure. You're playing the part of Doug – ordinary bloke on holiday in Moscow who just happens to want to steal the prized crown of the Tsar (encrusted with diamonds, pearls and open cheques...) after seeing it in the Kremlin museum (yes, the Kremlin's a museum nowadays).

So that's where the adventure starts. Doug in the bedroom of his hotel plotting to steal the crown. But of course it's not going to be that easy. Many, many tasks need to be completed before Doug's going to get anywhere near the crown and all the tasks are of the usual graphic adventure variety. An example?

Snap Happy

You're in Red Square. You want to have your picture taken standing next to the statue of the famous games character – Karl Marx. You give your camera to a nearby tourist who manages to take three crap photos of you (first with the lens cap on, second with his finger in the way and the third is all blurred). Now you've run out of film and will need to go to a nearby burger bar (Burger Czar – geddit?) in order to find a broken camera with a whole new roll of film. Load this in give the camera to the tourist again and finally you'll have a picture of the statue. And why should you have a picture of the statue – because you're trying to work out how tall the statue is in Vodkacola cans, silly.









Despite this poor screenshot, all the interactions you have with other characters are easy to follow.



Tee hee. What muddy funsters these programmers are eh? Take this side-splitting visual gag f'rinstance.

Actually, that probably sounds completely bizarre and off the wall but when you're playing it's not as mad as you might think. That's not to say the game's completely straightforward (who'd have thought you need to stick the TV aerial you're carrying into the slot of the weighing machine to get yourself another four roubledollars? Not me).

Big Red Arrow

Controlling the game is pretty easy – a big red arrow acts as your cursor – move it around the screen and anything of any importance is highlighted (including links to the next location) you then simply click and the appropriate action is carried out.

Although the designers have tried to make it as friendly as possible there's still a bit of this 'click on that object, click on the use icon and then click on the other object' to get things done. It's not so bad though because it's just a right mouse click to bring up your main icons menu and dragging and clicking isn't too painful.

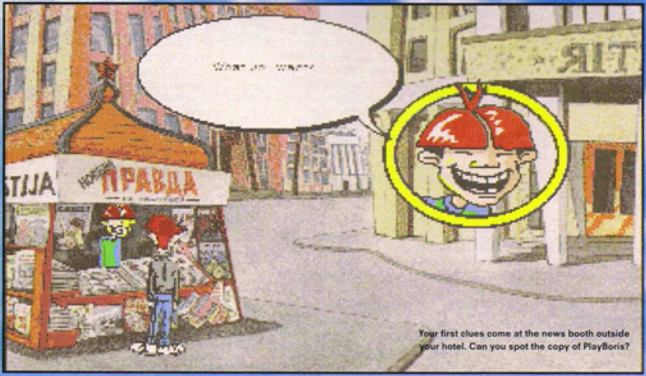
And a jolly big adventure it is too. There are four parts of the game to complete and that's going to take you a while. You're going to have a lot of fun playing it though. It's not quite a mind-blowing gaming experience – probably not worth rushing out and buying a CD-ROM just so you can play it – and it's not the best adventure game to have appeared over the years either. It lacks the comedy and innovation of something like *Monkey Island*, but it's a whole lot more fun than things like *Dream Web* or *Leisure Suit Larry*. There are a couple of other niggles I've got with *Big Red Adventure* too – moving your cursor around the screen is okay if you're not too swift, but you can occasionally miss things because the on-screen text flashes on and off too quickly. Not a massive thing but niggly nonetheless. To it's credit though it doesn't suffer from the teeny-tiny pixel at the corner of the screen being the most important object, which is good. However, it does suffer from the 'oh dear I've drunk the can of Vodkacola so now I can't use it where I needed too' syndrome which does mean you've got to go back to your last saved game and continue from there – again, not too painful but annoying enough to ensure it misses out on *Format* Gold status.

Keep coming back

Die-hard adventurers are going to be used to the game's nuances though and will be prepared to work with them while the rest of us will shout at the screen a couple of times and go back and do things properly because we want to get a bit further in the game. And it does have that level of addiction. The interface is good enough to keep the game playing experience fun and it's not so illogical you'll give up at the first problem – like most adventures, just keep trying when you're stuck and you're going to find the solution. Eventually.

All in all a good, but not supremely great, adventure game. The temptation is to give it a higher score than it deserves simply because it's a good game and we all know there are precious few of these around right at the moment, but we're not going to fall into that trap. It's a jolly good game, accessible to people who don't normally play adventure games and yet convoluted enough for people who do. Well worth buying.

"Why should you have a picture of the statue – because you're trying to work out how tall the statue is in Vodkacola cans, silly."



Your first clues come at the news booth outside your hotel. Can you spot the copy of PlayBoris?



See the scales? Good. Stick the TV aeriel you're carrying into the slot and you'll get yourself a few more Roubledollars. Strange!



Trying to get on Russian TV is not as simple as you might expect. You'll need a ticket cut from a local newspaper...



At the train station. Don't expect to go anywhere until you've got your passport. Where do you get that? No clues yet...



Attempting to be photographed besides the Karl Marx statue in Red Square. This is trickier than it would first appear to be...

PUBLISHER: Power Computing 01234 851500
PRICE: £19.95
VERSION: CD-ROM only
REQUIREMENTS: CD-ROM
RELEASE DATE: Out now

GRAPHICS: ●●●●○
Great looking and a bit witty.

SOUND: ●●○○○
Hmm, not too clever here though.

ADDICTION: ●●●○○
Nothing too taxing so you keep playing.

PLAYABILITY: ●●●○○
There are a couple of niggly bits out there.

OVERALL VERDICT:
A lovely game not quite worth a Format Gold but close enough to be highly recommended.

86%

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Some are truly dreadful, some are truly stunning and some are truly mad. **Andy Smith** samples this month's...

Reader Games

And that's why we love 'em. It doesn't matter if they're truly dreadful or truly mad or truly great even, we just want to see 'em. Because the one thing they all do is re-affirm our belief that the Amiga is THE machine that gaming geniuses cut their teeth on. You can forget your £2,000 PCs and your inaccessible PlayStations, give someone an A1200 and a copy of *Blitz Basic* or *Amos* and if they've got even just a spark of imagination out will pop something that other people will enjoy playing.

The aim of Reader Games is to give all those people who obviously have got a spark of imagination, the chance to show the rest of the gaming world what they're all about.

We're not interested in scoring or rating the games here, we're merely trying to offer advice and thoughts on how the games can be improved to make them even more fun.

Maybe we're right and maybe we're wrong but at the end of the day the ones we think are really good get passed on to Epic Marketing who have a long hard look at them with a view to releasing them commercially.

Your game may never make it but as we award £50 to the month's most impressive game, there's still every reason to stuff it in a jiffy bag and send it in. You never know, next month it could be you...

ANTS

AUTHOR: STEVE BAILEY
LANGUAGE: AMOS PRO

We've a cheeky little game to kick us off this month. You control a small ant who simply has to recover a key by blowing up the landscape that it's trapped in. You're armed with bombs which you drop – they explode and take out a bit of the landscape in a fashion very similar to *Worms* – until you can get to the key and move onto the next level.

But life's never that simple. Against you are enemy ants that come onto the screen and head towards you. Contact with the enemy ants causes loss of life but you are, fortunately, armed with a forward firing gun so you can take the enemy soldiers out if you manage to get in a position where you're at the same height as them (you can't control the elevation of the gun). The gun's also very handy at destroying the landscape too, by the way.

Complicating matters is the added problem of having to earn enough points to move onto the next level. In the landscape (and totally hidden) are small points bonuses. Shoot the landscape and a points bonus appears, collect the bonuses and when you've got enough you can start thinking about digging your way to the key.

Ants is a great little game. It's a little glitchy (hey, saying buggy would be just too obvious!) at times but that's mostly forgivable. It's actually a whole lot more addictive than you'd imagine and there are some neat little tricks added which give the gameplay more depth.



Your little ant prepares to pick up a score bonus and blast an enemy ant moving towards him.

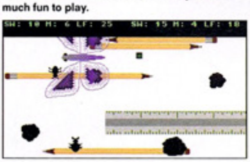
Verdict: A great little game that only really needs a bit of polish. Steve's added some cheeky little bits (passwords are revealed letter by letter as you either kill the enemy ants or collect bonuses for example) which really help. A fine effort.

BATTLE OF THE STINK BEETLES



AUTHOR: ROBERT BENJAMIN
LANGUAGE: UNKNOWN

Regular readers will recognise Robert's face immediately. This is the third game of his to be featured in Reader Games and every one has been a little cracker. As seems to be Robert's trademark, the games look pretty dreadful (this one's better than the others, believe me) but are just so much fun to play.

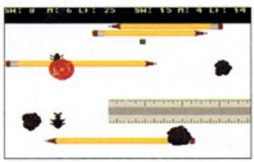


The butterfly airforce drops some extra energy.

Battle of the Stink Beetles is a simple tank battle game where the tanks are beetles (chosen from a selection of four) and the ammunition is spit. It's a two player only affair set in one of a choice of six arenas (very *Micro Machines* stylee) in which the two combatants trundle about trying to spit at each other.

Each beetle also has a set number of mines to drop (once you've picked them from the options menu) in an attempt to harm the other fella and new supplies are delivered by a butterfly 'airforce'. You can even find yourself running from enemy bumblebee 'bombers'. It's mad stuff!

What's most impressive with this game though is just how tactical the play becomes. You can't just bimble about firing left, right and centre, you've got to think about what you're doing and make full use of whatever landscape features there are – even to the point of hiding under balls of dung! It's not a laugh a minute but it is good fun. Robert's other trademark is the speech he uses in his games and *BOTSB* is no exception. It may look ropy and it may be a weird idea but it's good fun to play.



Kaboom! Take that, stink beetle! The black blobs here are lumps of dung to hide under. No, we don't fully understand how Robert's head works either...

Verdict: Another little corker from the Benjamin stables. Weird ideas and good gameplay. If anything it's a little sedate, maybe a bigger variety of weapons or the ability to interact more with the environment would make it even more fun.

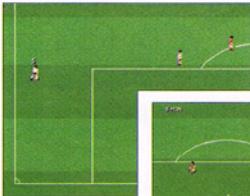
ENGLAND '66



AUTHOR: SIMON TAYLOR
LANGUAGE: BLITZ BASIC 2



A zombie prepares to take a kick. Heaven only knows what he's trapped his fingers in but it looks painful!



There may only be the one match, but it's not half bad. Some people are on the pitch and so on and so forth...



Goal mouth action. And what's the keeper doing?

Blimey, we don't get many of these in Reader Games, a decent (if two player only) footy game. Following firmly in the *Kick Off* (the first one, not the crappy follow-ups) and *Sensible Soccer* mould of viewing the action from above (well, not quite above, but almost) Simon Taylor's *England '66* is a little belter.

It's not perfect – the goalies are especially crap but it's fast, furious and generally a goodie. There's even after-touch on the ball. It's not terribly easy to control – your players tend to lose the ball a lot, especially when you're trying to change direction, but at least you can pass properly. The AI is pretty good too, players will run after the ball when it's sensible to and we understand Simon's currently working on the AI routines to create a one player version of the game.

There are a couple of annoying points – your players can run right through the goals for example, but that's us just being a little too pedantic because what we've got here is a very good football game – it's leagues ahead of some commercial games and, at the end of the day, is great fun to play. It doesn't have the polish of *Sensi* et al but it's got the basics and they're enough to carry it.

A one player option and some more attention to detail are just about all this game really needs – though it really does need a good bug testing session because some very odd things happen to the ball at times, like when it goes rocketing towards the goal all by itself a few seconds after you'd tried a shot – great stuff.

Verdict: A not very polished and quite buggy footy game that has all the basic ingredients to be something very good indeed. It's not original, it's not doing anything *Sensi* hasn't done but it's mighty fine nonetheless.

CLUNK CLICK

AUTHOR: PAUL HOPKINS
LANGUAGE: UNKNOWN





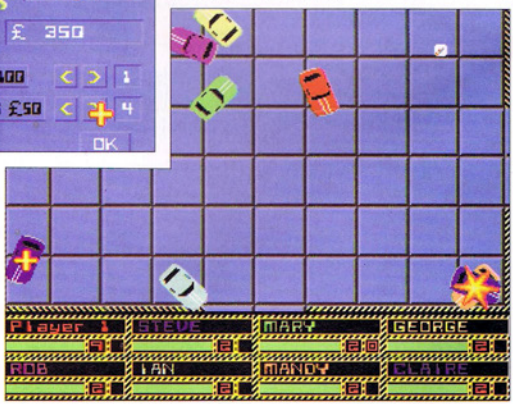
The cars bash and smash each other (above left) until they just can't go no more. Buying extra goodies in the shop (above right). Just the job.

We get a fair few of these at Reader Games – *Destruction Derby* viewed from above. You control one of up to eight cars and your purpose is to ram and smash into the other seven. The last one standing is the winner. The only real extra that *Clunk Click* has is the shop that allows you to buy weaponry.

Although the graphics are pretty crude they're acceptable. Less acceptable is the jerky way the cars move – sure, they're quite big but when you're turning you can't help but wince. This is doubly galling because actually controlling the cars is one of the best things about the game – it's very intuitive. This would work better if it was a viewed from above racing game really.

The arena is littered with power-ups too which is quite a good thing, but what's not so good is the horrendous slow-down that happens when you've got more than four cars on screen. Possibly even more annoying though is when you don't win a bout and a couple of computer cars get themselves stuck in a corner of the arena on top of each other. The bout then lasts for hours as they fail to collide. Grrr!

It's not that there's anything particularly wrong with *Clunk Click* (apart from the jerky graphics and the slow-down that it) it's just that it's so typical of games of this type. It does absolutely nothing at all that hasn't been done better before.



The game also has a crude game of tag, the blue car above is 'it' – when he bashes into another car, that car will become 'it'. There seems little point to it and I've no idea who ends up the winner. Ho hum.

Verdict: A distinctly average *Destruction Derby* (but viewed from above and on the Amiga) clone. It's a bit glitchy and there's nothing much going on that hasn't gone on before. Needs some new features.

WAG-O-FUN

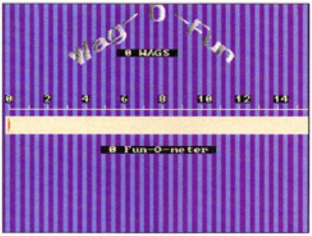
AUTHORS: IAN HEWITT
LANGUAGE: AMOS

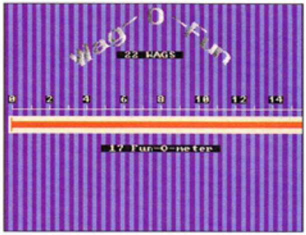
Life is great and so are you lot. I don't think anyone but an Amiga owner could have come up with a game like this. You certainly wouldn't get a PC or PlayStation owner even contemplating something like this.

What's it all about? Well, in a nutshell, you waggle your joystick. That's pretty much it. There's a meter in the centre of the screen, you simply waggle and try to get the meter as high as possible. There's no time limit or anything, you just keep going until you get fed up. This is Ian's first game. He's planning some more apparently.

I don't really know what else to say about it. How on earth can someone think that a routine for reading the movements of a joystick can be all there is to a game? ARE YOU ALL CRAZY? It's not as if the scale's very big even, it only goes up to 14 and even a quite lazy waggle gets a 17 or 18 quite easily. What the bloody hell am I talking about? I'm treating it like it's a game! Somebody shoot me. I need a lie down. I thought text-only *Elite* games were the pinnacle. I even thought games where you simply try and guess what number the computer's thinking of were about as mad as you can get and someone comes along with *Wag-O-Fun*. Really folks, things are tough enough as it is. I don't want people messing with my head with things like this. I worry. There's even a bloody counter telling you how many wags you've made. Aaargh!

Sorry about that. I've had a lie down now and things are much better. Right, let's look at this objectively. Hmmm. Ok, ok, I can see what he's trying to do. NO! STOP IT! This really can't go on. Ian, stop now.





Before the waggle and after the waggle. This really is all there is to this most bizarre 'game'. Some people are mad. *Wag-O-Fun*? Bag-o-shite!

Verdict: There's nothing more to say about this. I can't even bring myself to call it a ga... a g... see! Bonkers, bizarre and crap.

REBOUND ARENA

AUTHOR: AARON MCDONALD
LANGUAGE: UNKNOWN

This is much more like it. A game that not only is a real game, but a damn fine one at that. Again, it's a terribly, terribly simple concept – you merely have to guide a red ball that bounces from side to side across the screen into the blue gems and away from the grey blocks.





Collect the blue gems (top). It's a shame it all ends (bottom) when you manage to complete the level.

Contact with any block causes instant death and unless you've been to the options screen and given yourself some more lives it's game over. The arena is walled so there's no problem with allowing the ball to bounce off the edges and change direction. The only other time the ball changes direction is when you do manage to steer it into a blue gem.



The static screenshots don't do this game justice. You should feel the tension!

Playing this game is murderous. It's a whole lot harder than you'd imagine (maybe the red ball's just a tad too swift Aaron?) and because you're up against a time limit too – admittedly, the time limit is just for high-score purposes – things are even tougher. It's such a simple concept and it's so well tuned you can't help but get horribly addicted to it. It's got the same appeal as a good *Breakout* game – mindless but with an irresistible challenge. As it stands it's great fun but it would be so easy to add just a couple of new features that would add a bit more variety and depth to the gameplay. Have a think Aaron and chuck a couple more things in – teleports? Walls? Power-ups? Also the fact that sometimes you collect a gem but they don't disappear from the screen could be addressed. The game would also be improved if the number of blocks gradually increased as you progressed through the levels. If you actually progressed through levels instead of just having a 'Level Complete' message before being dropped back at the main menu screen, things would be improved. What I'm saying here is that this has great potential but at the moment it feels not quite finished. This month's £50 prize should encourage Aaron to put a bit more work in.

Verdict: A great start but there's some work needed to make it even better. The gameplay's pretty much there but it does need a few more bits and pieces to make it all hang together.

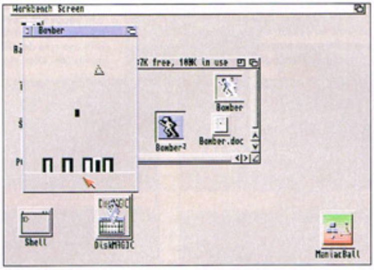
WORKBENCH BOMBER

AUTHOR: MARK KLOCEK
LANGUAGE: BLITZ BASIC

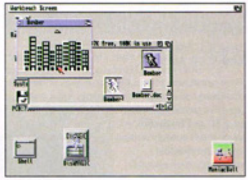
Blitz is a very fitting language for this little game. It's an old game but this one's well done. A small triangle (your bomber actually) moves left-right across the screen, with each subsequent pass it gets lower and if it hits any of the buildings at the bottom of the window, the game ends.

It's a good job then that every time you click the mouse button a bomb drops (actually, not every click because you can only have one bomb on screen at a time, but you know what I mean). And every time a bomb hits a building it is reduced in size. You know what it's all about. As you progress through the levels the buildings get higher and the triangle gets faster and lower.

It's great fun. It's not original though and again, there are things that could be done to make it better. For a start a triangle's not really very impressive and again, features could be added just to give it more of an angle (triangle,



A triangle and some blocks. The graphics could certainly do with some more work. Great little game though, and very addictive.



angle, geddit?). Although it's very straightforward, there's a little bit of tactics needed to survive – especially on the later levels. You've got to pick and choose just where and when you drop your bombs because those buildings get mighty high.

It's sweet, simple and a fine little desktop accessory. It's not quite a work destroyer like *Tetris* but with this running in the background somewhere you can find yourself getting behind schedule quicker than you might imagine. Good one Mark, don't leave it there though eh? Get stuck into something a bit more meaty and we'd be keen to see the results.

Verdict: Simple and addictive with everything working as it should. It could be improved quite easily though, so Mark's got some more work to do.

BLASTEROIDS

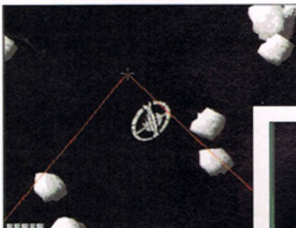
AUTHOR: MATTHEW HAMPTON
LANGUAGE: BLITZ BASIC

We're definitely finishing on a high this month. *Blasteroids* is a sort of, but not really, *Asteroids* clone. You're protecting a small space station in the centre of the screen while all around it are solid 3D asteroids tumbling through space.

Unlike *Asteroids* however, when it's the actual ship that shoots the asteroids to protect itself, in *Blasteroids* you're controlling a cross-hair that you move around the screen. Pressing the left mouse button fires lasers at the cross-hair and this way you rid the screen of the rocks. Except you never actually rid the screen because although the game gets progressively harder in waves, there's no actual break from one wave to the next – things just get faster and more numerous.

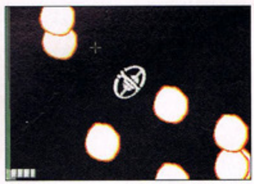
And unlike *Asteroids* when you had a 'last ditch' hope of escaping from certain death in the shape of the hyperspace button, hitting the right mouse button in Blasteroids sets off a smart bomb that destroys everything on screen.

It's great fun though. It gets really tough from about wave 6 onwards and it's here you



Destroy the asteroids before they destroy your space station. Jolly good, frantic fun it is too. Well done Mat.

wish you'd saved up your smart bombs! The game differs from Asteroids again in that when you shoot a large asteroid it doesn't shatter into smaller rocks, it just blows up, but it does require more shots to destroy it than the little ones – get the picture? Matthew's obviously put some work in here although he reckons the main code was written in just a day. More features and a bit of variety wouldn't go amiss but nevertheless this is generally a goodie.



Destroy everything on screen with a well-timed smart bomb. You know they're all going to be back though...

Verdict: Top stuff. All it needs is a couple of tweaks here and there. Explosions are especially nice. A fine note for us to end Reader Games on this month.

MORE OF THE SAME PLEASE!

We love seeing your games! We love 'em so much we give a whopping £50 to the author of the month's best game. Not only that though, we send the month's best game (plus any others we think are worthwhile) to Epic Marketing who have a long hard look at 'em with a view to publishing them commercially. Any games that we do send to them also win their authors' a fabulous Epic CD. A word of caution though, don't bother trying to slip any old PD game past us, we'll notice it and chuck it in the bin – after we've wiped the disk for good measure. When you are sending in your submissions though folks, and this bit's important, make sure you include a contact address and make sure you let us know what language you've used to create the game (*Amos, Blitz, Assembler* or whatever), because it gives the other readers a good idea what the package can do and might inspire them to get making games themselves. Oh, and if you could include a recent photo of yourself that would be great (don't worry, no one's uglier than us!). The address to send your stuff to, as usual is: Reader Games • Amiga Format • 30 Monmouth Street, Bath • BA1 2BW.

GameBusters



For games players, this is the most helpful part of the magazine. We've got the answers to all the hard questions – like "How do I get past the gremlin on level five?"

COMPLETE SOLUTION

Dream Web



Outside your friend Louis' house you suffer the indignation of plimsoll theft.



A 30-compartment inventory allows for all manner of useful knick knacks.

We get many, many letters asking for the solution to this and it just so happens that I've found out exactly what it is. Hurrah! Get ready then…

1. Kill David Crane

The first thing to do is pick up your credit card which can be found in your wallet lying on the left hand side of Eden's desk in the bedroom. Leave to the right and pick up the red cartridge lying on a crate at the top of the room. Examine the microwave and you'll find a key which you'll most definitely need. Next, go through the door on the right, down the lift and into the garage. Pick up the screwdriver lying on the car and leave Eden's flat altogether.

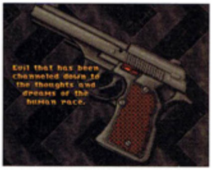
▼ Go to your own flat, keying in 5106 at the door. Get the knife lying on your bed and while you're there pick up a cup. Take the cup to the kitchen (which is to the south) and use the tap at the sink with the cup to fill it full of water. Go back to your bedroom and examine Eden's cartridge with your network screen (put your card into the interface and click on the screen, and so on). You'll be given the code for Sartain Industries (7833 – you need this later). Get the red cartridge lying to the left of the keyboard and examine this one in the same way as you did the other. This time, however, log on with the name RYAN and the password BLACKDRAGON. Read the file marked PRIVATE and you'll be given your friend LOUIS' address.

▼ Leave your flat and head towards Louis' house. Walk into the lobby and get mugged (great fun eh?). Once the thief leaves, go back to the lobby and head for the room to the south. This is Louis' room. Punch in 5238 at the keypad and in you go. First of all, walk to the unit on the left hand side (by the microwave). Examine it and you'll find Louis' pool hall entrance card. Examine the card itself by clicking on it with your right mouse button, while in the inventory screen. This will give you the address of the pool hall. Go and chat to Louis who's in the loo. He'll tell you where to get a gun from. Take both of his trainers which are also in the loo with Louis. To wear the trainers you need to click on them both in the inventory screen with the right mouse button.

▼ Leave Louis' flat and head towards Sparky's bar. Go and talk to the bloke sitting at the bar and he'll tell you where Crane is. Have a chat with Sparky who'll give you a loan providing you put your credit card through the scanner on the bar. Once you've got the loan, leave the bar and head towards the pool hall.

▼ Enter the pool hall and talk to the assistant behind the bars. If you moan on properly he'll let you use Louis' card to get in to the hall. So place your card in the card reader and go inside. Use the lift and when you leave go and talk to the barman who'll give you Mr Silverman's door code (5222). Keep walking to the left until you get to his door, punch in the code and enter the room. Talk to Silverman and put your credit card through the reader. He'll give you a gun. Take the gun and leave the pool hall the way you came in.

▼ Make your way to the Regency Hotel. Walk over to the woman at reception and book a room. She'll ask you for your credit card, so stick it in the scanner and out will pop a brown passcard. Pick it up and go to the door on the north wall. Press the switch on the control box and go into the lift. Use the lift control box with the passcard to take you up to your floor. Leave the lift, walk to the left and then down towards the fire point at the bottom of the screen. Open the fire point and get the axe. Then go back to the lift. Once inside the lift,



A horse walks into a bar: the barman says "Why the long face?". It's a cracker.



Keep yours eyes peeled for for the pixel masquerading as a keycard.

use your knife on the control box to reveal a green wire. Again, use your knife to cut the wire. This will disable the lift. Now, in the top right hand corner of the lift is a handle. Use it. You'll end up on top of the lift. Walk to the lift doors (they're to the south) and use your axe to prise the doors open. Now don't get too excited with your gun here when you see the two guards – throw your axe first. Then you can use your gun to shoot the other guard. Hurry quickly to the left and down in the next room which contains a rockery/pond affair. Now you can just shoot Crane on his bed



'Ryan, Ryan – quick, kill the lilo before it explodes!'

(might as well leave the girl alone). This then takes you to the Keepers.

▼ Chat to the Keepers if you fancy. Head down through two rooms until you get to the bottom where the purple crystal is. Pick it up. Go to the room on your right and use the first door on your right. Once inside, use the key (which you got from the microwave) to destroy the plinth and return you to your world.

2. Kill Sterling

Go home first of all and use your network screen to read the newsnet. Read the 'TVSPECIAL' and you'll remember how to get to the Channel 6 studios. Leave your flat and go there. Walk all the way around the building until you come to a road which has some brown numbered markings on it. Go left here and talk to the old boy behind the desk. After you've had a nice, friendly, chat – kill him. Go to the control panel/desk and press some buttons. This will allow you access into the building if you walk to the left of the barrier.

▼ Once you're inside, walk to the desk. Pick up the leaflet and drop it immediately. This should reveal a green passcard on the desk. Take the passcard and walk to the room on the left. Use the passcard to get into the cleaning cupboard (it's located at the bottom of this room). Walk over to the right of the cleaning cupboard and you should find the fusebox. Use your screwdriver to open the fusebox and you'll find a brown fuse falls out. Take the fuse and head back to the room where you picked up the green passcard. This time, however, head to the room on the right. Go up the screen, into the next room and use the ladders in the corner.

▼ Walk to the control box for the crane and open it. Inside is a blown fuse. Throw it away and replace it with the new brown fuse you got from the cupboard. Activate the controls and you'll squish the poor chap below.

▼ Now when you visit the Keepers, go down two rooms, to the left and take the first door. Put your key in the plinth and so on as you did before.



Sex scene banished, we arrive just in time to see the rock star suitably slaughtered.

3. Kill Sartain

When you return to the real world, go to Eden's flat. Her door number is 2865 – as you should know already. Go upstairs, back into her bedroom (let her take her bath in peace!) and examine her personal organiser. This is just beneath the rotating fan. Press the "N" key (on the organiser) five times and you'll get the address of Sartain Industries. Leave Eden's flat and head towards Sartain Ind. Use the code 7833 at the doorway and go in. There's a really hard part here as you have to blow up the computer screen with your gun and walk to the left. Walk through the opening and closing doors, go up the lift and prepare for a nice welcoming committee.

> "Go left here and talk to the old boy behind the desk. After you've had a nice, friendly, chat – kill him."

▼ Leave the lift and you'll see a couple of guards. Use your crystal here and watch as they spill their guts – literally! Go to the room to the south of here and open the case. Get the documents inside. Read it now if you fancy or after you've killed Sartain – best to read it now and not have to bother later really. Next, go to the room on your right, up both flights of stairs and onto the roof. Go to the left on top of the roof and shoot the plane/craft with your gun.

▼ Again, you'll be off to visit the Keepers. This time go south once and take the door to your right.

4. Kill Miss Chapel

As you appear in the car park, go past the Mini. Grab the wire cutters from the back of the truck and leave the car park by walking upwards. After reading that document you'll know where her house is. Go there. Walk towards the thick wall and climb over. Go south and you'll discover someone's done you a favour because she's already dead.

▼ Pick up the blue cartridge while you're there and leave by climbing back over the wall and heading left.

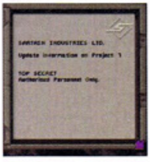
5. Kill Underwood

Go to the boathouse. At the entrance to the beach, grab the piece of railing south of the entrance. Walk to the right, near the water. In this screen you'll see a junction box under the sand above you. Use the junction box and wipe off the sand. Use it again with the piece of railing to prise off the covering panel. Now use it again with your cup of water and watch as things go bang. Now climb down through the hole in the window to the right. You'll see there's not much left of Underwood but you have to kill her anyway. You'll be off back to the Keepers again and you should now go south two rooms and then left, taking the second door.

6. Kill Beckett

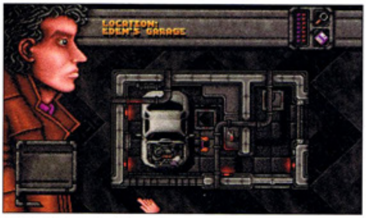
You might have to cheat here – I did. Go home and examine the blue network card you found at Chapel's house. The problem? Well, you have to log on as Beckett without properly knowing his password. The password is actually SEPTIMUS and you can find that out by reading the BRIEF file. This tells you where the old church is. Leave your flat and go to the church. Use the wire cutters on the right hand gate to gain access to the church. Proceed through the doors and you'll see a skeleton. Get the hand lying next to it on the right. Head south until you reach the altar.

▼ Remove the candlesticks and cloth from the altar by just picking them up and dropping them. On the top of the altar is a hole. Place the hand inside the hole and you'll hear a clunk. Push the altar to reveal a bigger hole. Slide down into the hole.



Another step toward glory as you discover some secret paper.

Continued overleaf ➡



Of all the glamourous locations. No clues, but the words 'screw' and 'driver' spring to mind.

← ▼ Now you'll find yourself in a tomb. There's a jar to the left. Examine it and take the red ball. Place the red ball into the centre floor tile with the three oblique holes. Now you can get the other two balls by moving the top off the tomb. Place them both in the remaining holes and be sure to collect the rock which is inside the tomb. Go through the open door to the right, collect the two rocks in this next room and walk upwards. You'll find a statue here which requires some thought to use properly.

▼ There are two parts of the statue which rotate. Each part contains six markings with matching markings on the other part. Start by keeping the top part still. Press the purple button and listen for a clunk. If you do hear a clunk you can stop this procedure right here. If you don't hear a clunk, rotate the bottom piece by one and press the button again. Repeat this until the bottom piece has moved six times (back to its original position). Now turn the top piece by one and repeat the process of turning the bottom part and pressing the button. Keep doing it until you hear the clunk.

▼ Move down south as far as you can and then go into the room on your right which contains a bed. In the upper right hand corner of the room hides a rock. Take the rock and leave. Keep going left, collecting any rocks you see on the way. Then go up and keep picking up those rocks. You'll find a room with a cart – go left here and get the remaining rocks. You should have collected eight rocks in all. Load them into the cart and give it a push. The cart will go southwards and create a hole in the southern wall two screens below. Go through the hole and head left.

▼ Go south down the steps and you'll see the priest who's entered Entropy. To the right hand side of this room is a hole. go down the hole and walk to your left onto a railway platform. Go upwards and upwards on the next screen. You'll then see a hole in the wall on the left. Go through it and Beckett will give you a boring lecture. Wait for him to shut up. Once he's quiet, leave. If you make it out of the room, he'll get hit by a train and you'll have completed the game!

"...you'll see a couple of guards. Use your crystal here and watch as they spill their guts – literally!"

Alien Breed 3D II

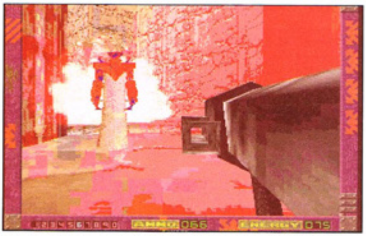


Up close and in yer face. Flying monsters can prove to be the hardest to kill, so take 'em out first if you can.

The latest in the *Alien Breed* series is a bit of toughie, so here's some general hints and tips to help you through. We'll be running some more level specific tips for this next month. Meanwhile:

1. Side Stepping

Master the side stepping keys and you're well on your way. Side step is crucial – especially when used with either the 'turn left' or 'turn right' keys as it will allow you to skid round corners. This in turn will allow you to bring your weapons to bear much quicker on enemies. Another use of the side step is to take quick glances round a corner. Alternate pressing of the left and right side step keys whilst holding down the run key lets you quickly rock from side to side. You can keep an eye on the enemy (and get a shot off if you're quick) from relative cover.



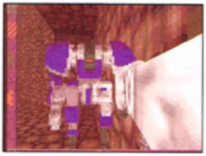
Woah! Rockets can certainly do some damage if you manage to actually hit something with 'em! Miss and you can enjoy the fabulous explosions.

2. Ammo

Manage your ammo! Use weak weapons on helpless enemies or easy targets. You're going to need your big blasters for later in the game!

3. Grenade Launcher

Get used to the trajectory characteristics of the grenade launcher. The ability to fire a grenade so that it bounces under the feet of a moving target is an essential skill, but don't be tempted to hang around and watch the results – get yourself back under cover asap. You can use the bounce of the grenade to fire round corners.



These big weapons are all well and good, but they really can be a bit of a pain when it comes to seeing things ahead.

4. Cover

Always be aware of where you can shelter. In dark areas use the auto-mapper to try and work out where a good cover site will be.

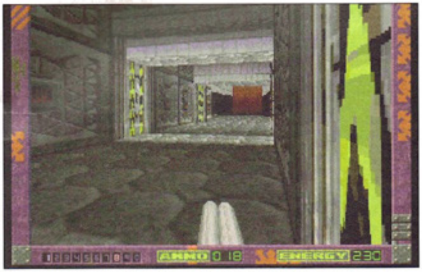
5. Making a stand

As with cover, always keep your eyes open for somewhere to make a stand

Bubble & Squeak

Back in January we gave this game away on our Coverdisk. Very kindly, Stephen Viant of Truro has sent us in all the codes. If you're having trouble in the game, simply bang in one of the following...
(These are the order that the levels actually play, so that's doubly helpful.)

Stardust caverns 2	=	**KDRSNNCS**	**Diamond foundry 5**	=	**THFQGBCS**
Neverglades	=	**KDRJCDGS**	**Diamond foundry 6**	=	**THFQTBCS**
Stardust caverns 3	=	**KDRJKDGS**	**Sandcastle desert 1**	=	**QLFBCDGS**
Stardust caverns 4	=	**KGRKGDGS**	**Sandcastle desert 2**	=	**QLFBKDGS**
Neverglades 2	=	**LLRLGBGS**	**Sandcastle desert 3**	=	**QLFCCDCS**
Diamond foundry 1	=	**LGRLKBGS**	**Neon city 1**	=	**QLFCKDCS**
Diamond foundry 2	=	**LLRMGBCS**	**Diamond foundry 7**	=	**QKFDGBGS**
Diamond foundry 3	=	**MLRMTBCS**	**Diamond foundry 8**	=	**QDGDTBGS**
Neverglades 3	=	**MLRNGDGS**	**Sandcastle desert 4**	=	**QDGRGBCS**
Neverglades 4	=	**MLRNTDGS**	**Sandcastle desert 5**	=	**BDGRTBCS**
Neverglades 5	=	**MLRTGDGS**	**Neon city 2**	=	**BDGFGDGS**
Stardust caverns 6	=	**NLRTTDCS**	**Neon city 3**	=	**BHGFKDGS**
Stardust caverns 7	=	**NLRPCBGS**	**Neon city 4**	=	**BKGGGDCS**
Diamond foundry 4	=	**TCFPKBGS**	**Neon city 5**	=	**BDHGTDCS**



Stand here and you have no cover and you're not at a high vantage point. You'll die.

from. A good place would either: have a high vantage point or excellent cover, or would be a place that you know has had all the areas behind it cleared of enemies.

6. Traps

Once you've found a good place to make a stand (see above) you can really have some fun. Make sure you know the layout of the level and then run through it, dodging enemy fire, until you come to your stand position. This drives the aliens potty and they'll swarm after you. You should now have the luxury of being able to pick 'em off one by one, or en masse using a mine or grenade. Great larks!

7. Get 'em stuck.

Whilst the aliens show some signs of intelligence their enthusiasm for pursuit can be used against them. Larger aliens (red robots, tall blue insects, green insects and so on) can become stuck in corridors or stairways too small for them to fit through. Find another route to come up behind a trapped alien and polish 'em off!

HELPING HANDS

JUNGLE STRIKE

Can you please give me the codes to the fab game *Jungle Strike*? I'm not very good at playing this game and the codes would be a real help.

Jason Lees
Stockport



To rescue hostages, first blow up the building they are being held in. Kill all the hostiles you see and then rescue the prisoners.

No sooner said than done Jason:

Washington DC	=	*RX6MHPCFVNK*
Sub Hunt	=	*9XWS6MHCY9L*
Training Ground	=	*XTGFDY39767*
Night Strike	=	*V6DRLPCJRTR*
Puloso City	=	*W7N4MJY3T6T*
Snow Fortress	=	*TNPF9XT7NHM*
River Raid	=	*73SPC39XV4X*
Return Home	=	*N4JRTPZJFRH*
Win Screen	=	*L6HGZXT7NH4*



A house. With a door. Windows, one, two, three, four, five, six, seven...

HEIMDALL 2



Eek! Scary walking pelvises! Run away! Run away!

I'm in Nifl'Heiml. I have the dragon's teeth, past the dog, up the stairs and so on to Loki's daughter's bedroom. That's it! What do I do now?

Lucas Jay
London

I'm sure we covered this about two months ago, but here's what to do again:
Ignore what Loki's daughter says and go to the right of the screen beside her. There's a secret door here so activate it by pressing the area. Now go into the room and fire an arrow into each of the mouths. Another door will appear. The rest is up to you...

ROAD RASH

I am having trouble with *Road Rash*. I really need some cheats or codes because I'm not very good at it. I never seem to have enough money to buy better bikes as I am always getting wrecked and busted. Please help.



Ah, the wind in your hair, club in your hand...

Jonathan Barnes
Bolton

Good timing for this one, considering Guildhall have just re-released it. Try these Jonathan:
Enter 21132 011H7 or VUKBE 27QAG
and you'll start on level two with a nice, snuggly, £41million to play with.



"Well that's another fine mess sorted out. That lot should just about keep you busy until we meet again, and remember any problems do write – I'll be only to pleased to help".

LEND A HAND

If you're having trouble with a particular game or have a solution to a question in the magazine, don't keep it to yourself, write it down or send it in on a disk and we'll do our best to print it. HELPING HANDS Amiga Format • 30 Monmouth Street • Bath • BA1 2BW.

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Competition Pro Mini Black	12.99	11.99
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Competition Pro Mini Clear	14.99	13.99
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Cruiser Black	10.99	10.49
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Mouse Mat	1.99	1.89
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(Microswitched joystick with steel shaft & triple action auto)		

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PD Select

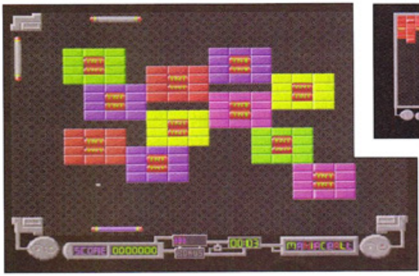
Outside the sun is blazing down, but dedicated Dave Cusick once more sits hunched over a sweaty keyboard to bring you the best in PD and Shareware.

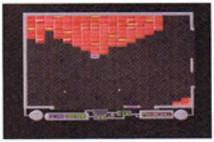
MANIACBALL

By	*Peter Elzner*
Ware	*Shareware*
PD Library	*OnLine PD*
No of disks	*One*
Price	*75p + 75p p&p*

Let me momentarily take you away from the comfortable armchair where you are presumably sat, steaming beverage in hand, reading your copy of *Amiga Format*. In a manner somewhat reminiscent of those tragic American TV movies that use bizarre rippling effects to represent flashbacks and dream sequences, I wish to briefly transport you to 1987. If it helps, conjure up a mental imagine of Rick Astley on Top Of The Pops, Margaret Thatcher in Downing Street and Terry Wogan on prime time television.

Now picture eleven school children crowded into a sitting room in Macclesfield; a sitting room attached to a recording studio where they have just committed to tape what will later prove to be the winning entry in that year's BBC Song For Christmas competition; a sitting room where they now await their teacher who is still discussing the mix with the owner of the studio. To keep their young minds occupied, the children have been directed towards an Atari ST (this is a recording studio in the eighties...) for which there is one game, a colourful bat-and-ball affair called *Arkanoid*. It reprises the *Breakout* theme so prevalent in the BASIC programming books that several of the children have at home, in that the somewhat surreal objective is simply to destroy a number of attractively arranged multicoloured bricks by bouncing a ball off them.





Unsurprisingly, TNT (left) stands for dynamite and when you hit it the whole coloured block will explode. Two balls at once (above) adds to the fun.



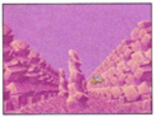
The blue bat is the one currently in play.

Cue rippling effect: the dream sequence is over. Never let it be said that these pages are not educational. In 200 words I have just recounted not only my first experiences with the legendary game which *Maniacball* draws so heavily upon, but I have also shared a golden image from my past, in the form of the recording session which would eventually give rise to my sole televisual appearance. Who could ask for anything more?

Anyway, with a startlingly good rendition of Madonna's Vogue thumping away in the background whilst the game options are proffered, *Maniacball* impresses from the moment it is first booted up. Essentially a multiplayer version of *Breakout*, *Maniacball* can be played by two players working together as a team, each controlling one or two bats, but if you don't have any friends to hand it is perfectly possible to play by yourself, controlling up to four bats simultaneously (depending on the level) via the mouse.

Maniacball is an extremely system friendly game. It multitasks nicely, and in addition to Lo and Hi-Res screen settings you can even choose which screenmode to play in. Unsurprisingly there are various bonuses which can be collected to beef up your bat size, give you laser capabilities, or otherwise aid your *Arkanoid*-esque antics. As one would expect in a modern *Breakout* clone, the graphics are extremely colourful and beautifully smooth. The excellent sampled sound effects are drawn from a variety of sources and they include Homer Simpson's legendary "Doh!", something which on its own warrants the immediate purchase of this game in my book...

Since *Maniacball* is Shareware, if you play the game regularly you really ought to send the author the 25DM registration fee. This will buy you the latest version of the program, some new levels, and a keyfile which will enable you to use the save-disabled MUI level designer (which is included on the distribution disk) should you tire of the usual levels.



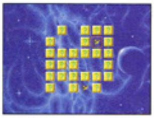
Avoid crashing into the 3D scenery (above) and then destroy the big green beast (below) – just two of the challenges in *Astrokid*.

ASTROKID

By	*Mikkel Fredborg*
Ware	*Licenceware*
PD Library	*Arrow PD*
No of disks	*Two*
Price	*£4.99 + 70p p&p*

Described by the author as a "multi-chapter" game, *Astrokid* is a curious blend of gaming styles. There are six distinctly unique stages offering very different challenges, loosely linked by a simple narrative.

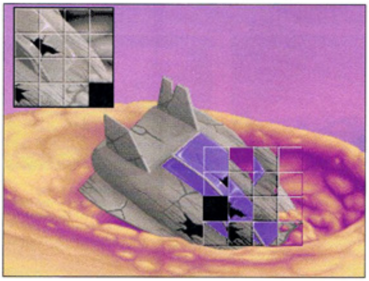




Next it's time to concentrate on the memory test...

Common to them all is a fairly high difficulty level, even using the easiest settings from the options menu.

The first stage consists of blasting asteroids and alien starships as they race towards your spacecraft. This is followed by a fiendishly difficult 3D into-the-screen sequence, in which the objective is simply to avoid crashing into the rapidly approaching scenery. I must confess that I could not get any further into



...and the final challenge is to put together your spaceship.

the game, but apparently after this you must despatch an evil alien beastie, then complete a simple memory test. The fifth level is a horizontally scrolling affair and involves navigating a cave complex at high speed, and in the final chapter you must assemble your starship by moving the components around the screen within a strict time limit.

With gorgeous graphics and some bouncy, funky music accompanying the action, *Astrokid* certainly cannot be faulted in terms of presentation. More importantly, the combination of gaming styles means that *Astrokid* should be possessed of a longevity rarely seen in budget offerings. Although individually none of the sub-games would really constitute strong titles, together they form an entertaining and enjoyable whole.

GROWORM SPECIAL EDITION

By..............................*Les Wigmore*
Ware ....*Shareware*
PD Library ....*OnLine PD*
No of disks ....*One*
Price......................*75p + 75p p&p*

This is another interesting blend of genres. Essentially a space shoot-em-up, *Groworm* offers an added twist in that you must control a wriggling worm thing rather than a bog-standard starfighter.

Control is via the mouse, meaning the eponymous beastie can nip around the screen at quite a pace. All the while, a starfield and the numerous waves of alien invaders scroll horizontally past. Your task is to wipe out the aliens totally, but of course they are not afraid of firing back so you would be wise to keep your wits about you when performing daring movey-blasty manouevres.

By opting for smooth action ahead of flashy graphics, Mr Wigmore has managed to produce a slick and addictive blasting game. (That's not to say that *Groworm*'s visuals are lacking; simply that the author has resisted falling into the same trap many other Shareware shoot-em-up authors have – that of trying so hard to create colourful graphics that the game speed suffers as a consequence). There has clearly been a good deal of thought and effort invested in the audio department too, with some toe-tappingly trendy music banging away whilst the intro screen is displayed, and some nice laser sound effects during the game itself.

This disk only contains a two-level demonstration version of *Groworm SE*: the full version of the game is available directly from the author for £3. The extra money gets you five levels comprising 27 attack waves, and also end-of-level bosses upon which you can vent your everyday frustrations.





***Groworm Special Edition* was on *AFCD13* in Reader's Stuff.**

MAX'S BBS V1.54

By ....*Anthony Barrett*
Ware ....*Freeware*
PD Library ....*OnLine PD*
No of disks ....*One*
Price......................*75p + 75p p&p*

With the explosion in popularity of the Internet, the Bulletin Board System which was once the heart of the comms world has been largely ignored by computer users.

Only a few years ago a 1200bps modem was considered state of the art, and instead of ringing up an Internet Service Provider comms enthusiasts would dial up their local BBS to upload and download software, or to exchange advice and opinions with other users around the world if their BBS carried Fidonet echo mail.



If you get stuck at any point then there is extensive AmigaGuide documentation.

Unlike some other programs which enable you to become a SysOp and run your own Bulletin Board, *MAX's BBS* is not a port but was written specifically for the Amiga. This means it has a standard Intuition interface which helps make configuring the program a breeze. Setting up your own BBS is further simplified by the fact that instead of relying on scores of small data files scattered around your hard drive, this application is completely self-contained, with only a single 245k executable to keep track of. The BBS can of course be totally customised so that you can develop a unique identity for it, although sample menus and text files are supplied on the disk to give you an idea of the program's potential.

There is true ANSI support, meaning all colours are displayed exactly as intended, and program messages such as "Press <Return> to continue" do not result in colour schemes being messed up. Other nice features include the automatic update of a comprehensive user log whenever anyone other than a SysOp calls your BBS, and online user editing whereby user details can be changed whilst someone is actually using the system.

This distribution includes some extremely helpful AmigaGuide format documentation as well as the necessary software to add Hydra Bi-Directional transfer capability to your BBS – meaning that users can upload software at the same time as downloading something else.

MAX's BBS is an extremely well produced piece of software. It is unfortunate that it will probably be of only limited appeal, owing to the low exposure Bulletin Board Systems get these days and the relatively small number of comms fans who will actually have the time and inclination to set up their own system.



Set up your own BBS with this simple and configurable piece of Amiga-specific software.

PD selection of the month

AMPU

By .... *Naamahaukut*
Ware .... *Free*
PD Library .... *OnLine PD*
No of disks .... *One*
Price .... *75p + 75p p&p*







That's you that is (left) with the red arrow on your head. The jet pack (right) is a cunning means of transport.

Ampu is an unashamed clone of Team 17's incredibly popular *Worms*, which has undoubtedly been one of the most successful Amiga games of recent years. It offers 256-colour AGA graphics, decent animation and large levels, but as a consequence it requires an Amiga with at least an '020 processor (preferably with an accelerator too), plus 1Mb of fast and 2Mb of chip RAM.

The game is controlled using both the keyboard and the mouse. At the start of a level you can scan your surroundings and plan ahead, but the moment you click the mouse button the game clock starts ticking. Your team of humanoids can be assigned one of up to 25 different abilities, weapons or tools, including grenades, jetpacks, molebombs and homing missiles. However the sparse documentation does not really explain how to use most of these abilities once they have been assigned to a humanoid – the programmers English was not really up to the task, so your first few games might involve a good deal of experimentation.

Technically it is extremely hard to criticise *Ampu*: it might not be in the least bit original, but it has delicious graphics which scroll impressively around the screen, and adequate if unspectacular sound effects. It also offers a considerable challenge to fans of artillery games in general. Its longevity is further assured by the inclusion of brief instructions as to how to construct your own levels using an art package such as *PPaint*. If your machine is powerful enough then make sure you do not miss what is amongst the best Freeware games to have appeared in the last year.



There are a total of 17 programs here so you should certainly find something useful.

NITEFALL COMPILATION #3

By .... *Various*
Ware .... *Freeware*
PD Library .... *OnLine PD*
No of disks .... *One*
Price .... *75p + 75p p&p*

The third of Nitefall's wonderfully varied series of compilation disks contains no fewer than 17 programs, so rather than mention them all, I have just picked out a few of the more notable inclusions.

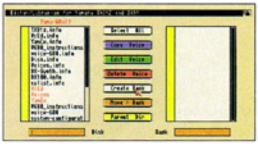
AWSPOP is a POP3 compliant mail receiving client whose author claims it is amongst the most configurable in existence. It certainly scores points for having been entirely written in ARexx, and it boasts several extremely powerful features such as sophisticated handling of incoming mail, and automatic execution of ARexx scripts on receipt of certain mail messages.

ECS Diagnosis offers possible solutions to Amiga-related problems – although quite how it would be possible to load up *ECS Diagnosis* if, for instance, your Amiga was suffering from a blank black screen is beyond me. *ZGif* is a fast GIF image viewer, and *AmiBot* is an IRC Bot program, which looks promising but which I have tried unsuccessfully to get working in the past.

Other interesting utilities include a *LeftyMouse* patcher (although with one being included in MCP it's unlikely many left-handed mouse owners still need a separate program to do this), a CLI-based lottery number generator, and a Workbench magnifying glass (which I'm sure there must be some use for, although it eludes me). There are also a couple of documents regarding the state of the Amiga as various companies squabble over its future, and some humourous bits and bobs which were presumably dredged off the Internet.

There are even some simple games included. *Bootout* and *Squash* are two tiny programs, designed to fit into the bootblock of your boot-up disk, which bear more than a passing resemblance to those old Grandstand-style video game systems which used to plug into a TV set. *Ringwar* is a peculiar shoot-em-up which makes use of vector graphics.

Overall then, *Nitefall 3* will not change your life – but it might provide a couple of useful utilities, and the text files are worth a read.



YAMAHA STUFF #1

By .... *Various*
Ware .... *Free*
PD Library .... *OnLine PD*
No of disks .... *One*
Price .... *75p + 75p p&p*



Voice editors and librarians etc. for Yamaha keyboards.

Thanks to its designers' decision to include MIDI sockets as standard, the Atari ST established itself as the

Continued overleaf ➡

TOP 10 PUBLIC DOMAIN TITLES

1. Pro Printer Drivers
2. CG Fonts
3. Arrow Archivers
4. Printer Drivers
5. Text Engine v5
6. Zalycon
7. Ant Wars v1.9
8. MUI v3.8
9. Mysteries of Mars
10. DPaint IV Buddy System

Top 10 courtesy of: Arrow PD • 1 PO Box 7 • Dover • Kent CT15 4AP • 01304 832344

WHERE TO GET THE DISKS

Arrow PD
PO Box 7
Dover
Kent • CT15 4AP
Tel: 01304 832344

Classic Amiga Software
11 Deansgate
Radcliffe
Manchester • M26 2SH
Tel: 0161 723 1638

OnLine PD
1 The Cloisters
Halsall Lane
Formby
Liverpool • L37 3PX
Tel: 01704 834335

Other good PD libraries



A very friendly GUI makes this software extremely easy to use.

machine of choice in recording studios during the eighties. The Amiga, despite having technologically superior sound hardware, required a separate MIDI interface to be of any use to studio musicians and so was often ignored.

However, these days there are plenty of Amiga enthusiasts who dabble with MIDI in the comfort of their own homes. Connecting a keyboard is an extremely simple operation once you have a couple of MIDI leads and the appropriate interface, and thanks to the thriving Amiga PD and Shareware scene, sequencing programs need not necessarily cost the earth.

However, that said, you won't find any sequencers here. Instead this disk contains a selection of software aimed at owners of Yamaha keyboards and synthesisers in particular. There are voice editors, librarians and sysex programs for the TX81Z, DS55, DX100, DS27, DX21, SY85 and PSS680 synths on the disk, as well as a small selection of PSS680 voices. Some of the programs must be executed via the CLI, whereas others have beautifully friendly graphic user interfaces which make them far easier to use.

Like *MAX's BBS*, this is a disk which will only appeal to a small subsection of the Amiga community, but the beauty of the public domain is that all tastes eventually seem to be catered for, no matter how specialised they might seem.

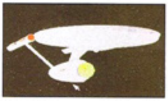
CRAZY EIGHTS

By ....*Curt Esser*
Ware ....*Freeware*
PD Library..Classic Amiga Software
No of disks ....*One*
Price ....*£1.00 + 75p p&p*

Crazy Eights is a conversion of an old card game in which the aim is to get rid of all your cards before the computer does. Cards can only be discarded if they match the rank or suit of the top card on the pile, but the titular *Crazy Eights* can be played on any card because they are, apparently, wild.

The game itself is reasonably good fun to play, and the computer chips in with various comments according to how well it is faring: "It's my turn now, my friend" and "Oh no, I'm losing" being not untypical examples.

Card games are rarely exciting visually, and to be honest *Crazy Eights* is no exception, despite what appears to be a valiant effort to add colour to face cards.



Sonically things are rather more impressive. *Crazy Eights* boasts some wonderfully humourous sound effects and an atmospheric – though occasionally annoying – country ditty.

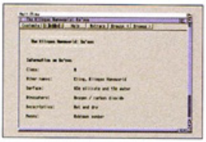
If you fancy something to amuse you during breaks from some particularly dull word processing, *Crazy Eights* is definitely worth considering. It's instantly accessible, not too demanding mentally and far more laid-back than *Tetris*.

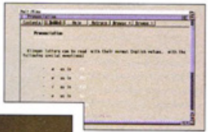
LEARN THE KLINGON LANGUAGE V1.1

By..........................*Daniel Sutcliffe*
Ware....................................*Share*
PD Library ....*OnLine PD*
No of disks ....*One*
Price......................*75p + 75p p&p*

Superficially Star Trek and Star Wars have a lot in common. Both are set in space, both earned their creators huge amounts of money both in their original forms and in their best 1990's suits, and both feature some bizarre latex aliens. However, there all similarities end. Star Wars was, and is still (despite pointless graphical enhancements in the Special Edition) one of the greatest sci-fi films of all time.

On the other hand, the original Star Trek series was irritating, tacky and hugely predictable, Star Trek: The Movie and its successors offered unmitigated tedium from start to finish and the numerous recent spin-off series have managed to become progressively more moronic.





A brief guide to the Klingon Homeworld and then straight into pronunciation.

Some misguided souls would have you believe not only that Star Trek is entertaining, but that it features real star systems and real alien races.

At least, that is one of two possible explanations for the bizarre practice amongst Trekkies of actually learning to speak the language of fictitious alien races from the Star Trek universe. The second possible explanation is more down to earth: these people are sad, and should probably be locked away.

Still, having come dangerously close to overstating what I maintain is a completely rational hatred of all things Trekular, I ought perhaps to point out that should you feel the inclination to learn to speak the Klingon language, getting hold of this aptly named disk would be a good way of going about it.

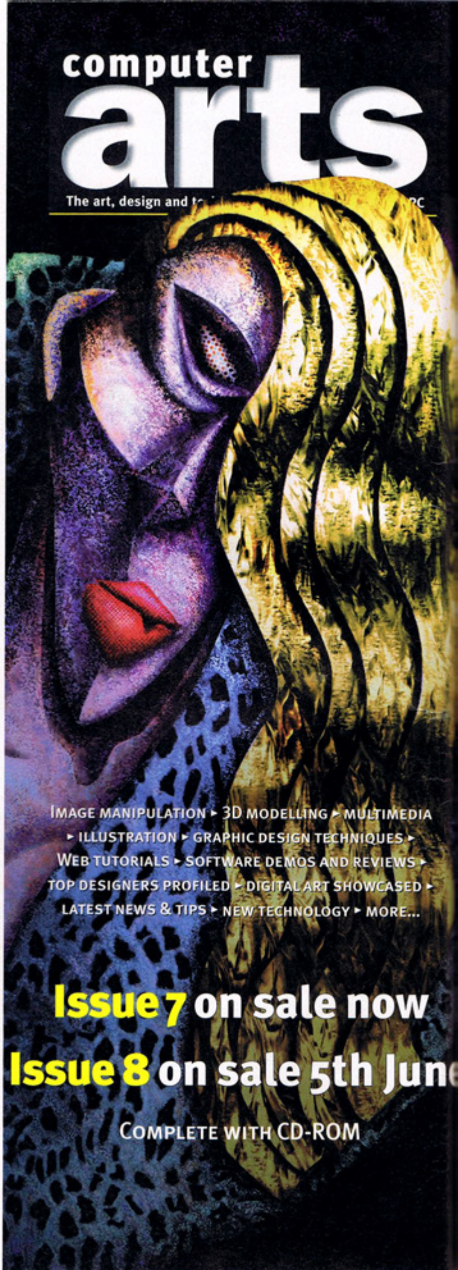
As instructional AmigaGuide documents go, the contents of this disk are not at all bad (if one ignores for a moment the supreme stupidity of their purpose). In addition to the usual hypertext and some colourful graphics, there are also a few audio snippets which Trekkies can use to help hone their oral skills.

This is, however, only a demonstration version of *Learn To Speak The Klingon Language*, and as such there is not a great deal of raw information here. Trekkies digging into their pockets for at least three quid (the minimum registration fee) can expect to receive a version featuring more speech and a complete guide to the episodes of Star Trek with a Klingon theme.





Crazy Eights **is great fun with some entertaining sound effects – it's just a shame that Curt can't spell friend!**



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SERIOUSLY AMIGA



Crikey muesli! It's been a busy month here at *Amiga Format* towers. Products just seem to be flying in – hopefully this is a sign of the Amiga's resurgence, now that it is no longer an orphan.

***NetConnect* is one product that should get a special mention. Considering you get all those registered programs in the bundle, it must rank as the best value package this month. At least it would do if it wasn't for the incredibly fast and very cheap accelerators we had from Power.**



AMIGA FORMAT'S REVIEW POLICY

is very simple. *Amiga Format* is staffed by some of the most experienced Amiga users in the world and what we say goes. OK?

WHAT OUR REVIEW SCORES MEAN

90+%	The crème de la crème. Only the very best, most versatile and effective products are awarded an *AF* Gold – the most highly prized rating there is.
80-89%	These products are very good, but there are minor flaws or areas that could be improved upon.
70-79%	Good games which are worth buying, especially if you have a special interest in a game type.
60-69%	Average products with somewhat limited features and appeal. Products in this category tend to be flawed.
50-59%	Below average products which are unlikely to impress your mates or your wallet. Avoid.
40-49%	Overwhelmingly poor quality products with major flaws.
Under 40%	The absolute pits.

No Speed

Go as fast as you dare with these new accelerator cards from Power. Ben Vost fastens his seatbelt!

There's a wealth of accelerator boards available for the Amiga these days. Well, there's a wealth of accelerator boards for A2000, A3000, A4000 and A1200 owners anyway. A600 owners have been left somewhat in the cold owing mainly to the limited expansion possibilities in the tiniest of Commodore's machines.

But Power even have a solution for A600 owners. In fact, they sent us a box so full of speed it's a wonder that Customs and Excise didn't descend on us. So here, in no particular order, are some of the best ways of speeding up your Amiga. This month we're covering the A600 and A1200, but Power hope to get us boards for the A500 and A2000 for next month. A600 owners rejoice! Speed and memory are with you!

New Viper 630

25MHz version 4MB	£99.95
25Mhz version 8MB	£115.95
42MHz version 4MB	£115.95
42Mhz version 8MB	£129.95
Extras:	
50MHz 68882	£29
Wordworth 6	£10

Board tested: 8Mb 42MHz '030 no FPU
SysInfo: 8.23 mips N/A mflops
AIBB: 10.8x faster than an A600, no fast RAM
LHA: 6.18 seconds

There have been A600 accelerators before but they haven't been brilliant because it's not easy making an A600 accelerator. For a start, the processor is surface mounted on the motherboard, so your only choice is to use a PLCC socket upside down to clamp onto the SMD pins coming out of the side and previous attempts at this have been fairly flimsy.

The Viper 630 clunks down on the 68000 fairly securely, it certainly feels solid enough, and doesn't readily come apart with the heat of the '030 on the board.

Fitting it is not much fun due to the fact that you have to remove the shield and snip a hole in it and also move your hard drive (you'll need a slightly longer IDE cable that Power can supply, and 3.5" drives are out of the question), but once it's out of the way you won't be delving back into the machine again, so it's not too much of a fag. This board is CE approved which means it has been tested to comply with EC regulations for computer peripherals, an unusual thing in the Amiga hardware world and to be commended.

The Viper 630 comes with either 4 or 8Mb RAM; 25MHz or 40MHz 68030.

It can't be upgraded so make sure



Super cheap memory upgrade for your A1200

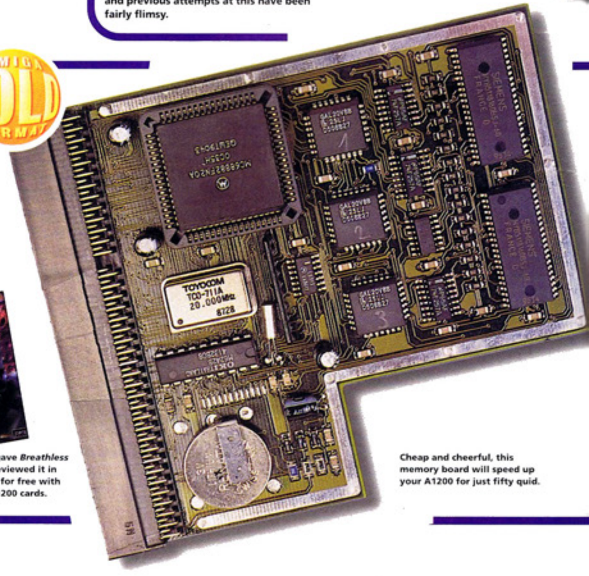
Power 4MB RAM board		£49.95
Free Breathless		
Extras:	20MHz 68882	£10
	33MHz 68882	£15
	Wordworth 6	£10

Board tested: 4Mb 20MHz FPU
SysInfo: 2.91 mips 0.50 mflops
AIBB: 1.64 times faster than an A1200 with no fast RAM
LHA: 15.33 secs



We gave *Breathless* 95% when we reviewed it in *AF80*. You get it for free with all the Power A1200 cards.

If you bought your A1200 just for playing games, and getting the occasional letter out, you must be sick and tired of all the magazines telling you to upgrade your machine. You're not particularly keen on having to spend the kind of money on your computer that will mean it's the fastest in the



Cheap and cheerful, this memory board will speed up your A1200 for just fifty quid.

Limit!



...you buy the one you will need for a while. The '030 on the card has been slightly overclocked to give 42MHz performance, but heat shouldn't be a problem with the little mini heatsink fitted on top of it. Overall, this is a great way of improving a difficult to upgrade computer.

How to make your A600 more than 10x faster in one easy step.

90%

...world, all you want to do is get on with what you're doing. OK, but here's an easy way of adding an extra 4Mb RAM to your machine that won't break the bank. It's easy to fit, it won't invalidate your warranty and it will triple the amount of RAM you have, making your machine much faster.

There's not much to say about this card really. It's CE approved, like the 630 and all the other accelerators in this review so you can be sure that it won't interfere with your TV signal or anything else and it's very, very cheap. Just think back a few years and you'll recall that 1Mb upgrades for an A500+ cost this kind of money without the facility for an FPU and without a real time clock (of course, the A500+ didn't actually need one). You can't add any more RAM to it, so once you've put it in your machine you can just forget about it and it co-operates just fine with the PCMCIA port.

94%

SPEED TESTS

For the speed tests for all the accelerator cards in this round-up, we used three programs. The first we used, a controversial choice for many, was *SysInfo*. *SysInfo*'s results are not particularly trustworthy, but we ran its speed test three times for each accelerator board and took an average of the results.

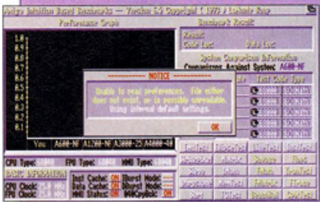
The second benchmark program we used was *AIBB*. Well-known and certainly more trusted than *SysInfo*, it still isn't the be all and end all of benchmarking programs. We ran a complete series of tests and rather than use any obscure figures, we just took the comparison results. For the A1200 accelerators we made sure that our machine was used on 68020 and CP math and adjusted the other machines to their defaults too.



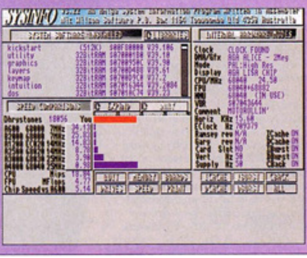
The picture used for our archive test. The original size of the picture was 167988 bytes, the archive size was 142950 bytes.

Our third benchmark was LHa. We used a Unix program called *Time*, to time the creation of an LHA archive in RAM: of a picture sitting in the RAM disk.

All tests were conducted on an A1200 running in PAL: Hi-Res in eight colours or an A600 running in PAL: Hi-Res in four colours. No system patches were running and all caches and burst modes were switched on wherever possible.



AIBB was used with its internal defaults so that no special settings could influence the outcome of the tests.



Although *SysInfo* isn't very reliable for isolated information, it's still useful for comparing one system against another.

Inexpensive acceleration

New Viper Mark IV		£99.95
Free Breathless		
Extras:	20MHz 68882	£10
	33MHz 68882	£15
	Wordworth 6	£10

Board tested: 4Mb 42MHz '030 33MHz FPU
SysInfo: 7.28 mips 1.22 mflops
AIBB: 4 times faster than an A1200 with no fast RAM
LHA: 6.66 secs



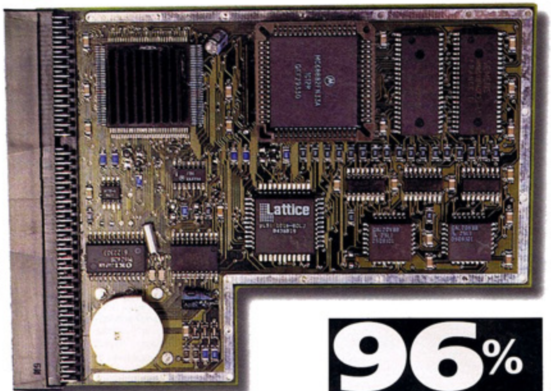
Free blasting with a complimentary copy of *Breathless*.

If you want to go just that bit faster than a pure RAM board can give you, how about this card for speed and cheapness? Like the RAM board, it's not upgradeable memory-wise, but you can fit the FPU of your choice to the card for very little money.

Like the memory card, this board is also CE approved and the '030 chip even has a diddy little heat sink on it to make sure your new powerhouse of an Amiga doesn't overheat.

Even though this board is the cheapest '030 accelerator card we've ever seen its build quality is among the best. The lack of a SIMM slot (because of the surface mounted RAM chips) means that the board is shorter and thus easier to fit. For someone that's just slightly more adventurous than the theoretical Amiga user mentioned in the RAM card review and has a bit more cash to spare, this board is a must.

This is one of the neatest, cheapest, fastest A1200 accelerators we've ever reviewed in *Amiga Format*.



96%

Hardcore power

New Viper Mark V		£139.95
With 8MB SIMM		£179.95
Free Breathless		
Extras:	50MHz 68882	£29
	Wordworth 6	£10

Board tested: 8Mb 50MHz 030 50MHz FPU
SysInfo: 9.55 mips 1.42 mflops
AIBB: 5 times faster than an A1200 with no fast RAM
LHA: 5.67 secs



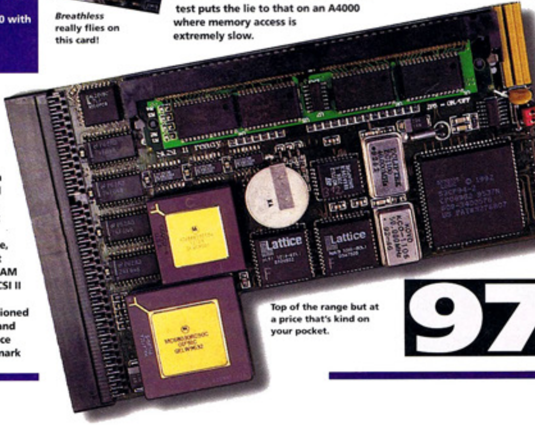
Breathless really flies on this card!

Now we're getting serious. The Viper Mark V is a top-of-the range A1200 accelerator that's faster than greased lightning – or a snow storm. The board you see in the photograph accompanying this part of the review is actually a prototype card that Power wanted us to have a look at, because they were so pleased with its quality. It fits into your belly slot neatly, although, because of its long shape, it's quite difficult to slot in to start with. It supports up to 256Mb of RAM on a single PS/2 SIMM and has a SCSI II controller built-in.

Like all the other boards mentioned so far, the Viper V is CE approved and offers extreme price-to-performance ratios. Take a look at those benchmark figures. To give you some idea of just how fast this board is, the LHA test on my A4000 here at the office, gives a speed of 5.37 seconds, that's just 0.3 of a second faster than the A1200 with this card in. While the spec for a 68040 clocked at 25MHz shows that it is supposed to be twice as fast as a 68030 at 50MHz, this test puts the lie to that on an A4000 where memory access is extremely slow.

The only problem with this board is that it makes it hard to justify buying the Viper Mark IV at £100, when you can have all that added power, and SCSI II for just an extra eighty quid – the price for a SCSI II module for some accelerators.

In short, this is probably the most powerful accelerator card I have ever seen for the A1200 and for the kind of price that we would have laughed at as being impossible just two years ago.



Top of the range but at a price that's kind on your pocket.

97%

Amiga Mice

Replacement Mice £6.95
MegaMouse 400 ....£9.95
MegaMouse Plus (3 Button) £10.95
Optical Mouse £29.95
New Golden Image TrackBall............£19.95
Pen Mouse ....£12.95 (ideal for CAD)
New Black Mouse for Amigas £9.95



Ram Boards

RAM CARDS A1200

A1200 with clock and 4Mb £49.00
A1200 with clock and 8Mb £65.00
A1200 with clock, 8Mb & 33Mhz FPU ..£80.00
33Mhz FPU inc. crystal.....................£15.00

RAM CARDS A500/500+ & A600

A500 512K w/o clock £20.00
A500+ 1Mb w/o clock £20.00
A600 1Mb w/o clock £20.00
A600 1Mb with clock £30.00

Controllers

AlfaPower Hard Drive controller A500 ...£99
AT-Bus Hard Drive controller A2000 ......£99
Oktagon 2008 SCSI controller £99
Multiface III £79
PCMCIA Controller for CDRom for A1200 £69

Spider

NEW MULTI I/O CARD

FOR AMIGA 1500/2000/4000

Active 8 port high speed serial card. Multiboard Support 57600 Baud rate on all channels simultaneously. **£299**

New AlfaQuatro Interface

Specially made hardware and software. Allows 4 ATAPI devices, ie, 2 IDE hard disk & 2 IDE CD Rom to Amiga 4000 internal IDE controller, through Alfapower on Amiga 500/500+ and possibly Amiga 1200, comes with full IDE Fix software **£59**

Joysticks & Joypads

Amiga Joysticks £9.95
Amiga Joypads...................................£9.95
CD32 Joypad £14.00

Speakers

Multi Media Speakers 100 watt (pmpo) £30.00
Multi Media Speakers 240 watt (pmpo) £45.00
Multi Media Speakers 300 watt (pmpo)* £59.95
** 3D surround sound*

92% AUI



Winner of Gold Format Award in Amiga Format February 1997

Best pricing on CD ROM Drives & Hard Drives.

We can supply CD ROM solutions for ALL Amigas from A500 to A4000. We will match any genuine advertised price and also give four top titles free: Nick Faldo's Championship Golf; Syndicate; Pinball Fantasies & The Chaos Engine on top where we have to price match any product.

All our External IDE CD ROM Drives have built in power supplies (they do not draw power from your Amiga)

Three different options to connect CD ROM drives to A600 or A1200

a) Use PCMCIA port for total external solution without opening up your Amiga. You can Hot plug this device without harming your Amiga.

b) Use Internal IDE port with AlfaDuo if you have 2.5" Hard Drive (will be with full IDEFIX software).

c) Use Internal IDE port with AlfaQuatro interface if you have 3.5" Hard Drive (will be with full IDEFIX software).



All CD ROM drives have play CD facility. Audio connection at front as well as at the back. Metal casing.

	External A600/A1200	Internal A1500/A2000	External* A500/A500+	Internal A4000
Quad speed CD ROM for	£149.00	£119.00	£129.00	£109.00
Six speed CD ROM for	£159.00	£129.00	£139.00	£119.00
4x4 Disk Changer	£159.00	£129.00	£139.00	£119.00
Eight speed CD ROM for	£169.00	£139.00	£149.00	£129.00

*(for A500/A500+ Alfapower hard drive controller and Hard Drive is required). A1500/A2000 supplied with IDE controller & software. A4000 supplied with AlfaQuatro interface & Full IDE Fix software.

Floppy Drives



External Floppy Drive for all Amigas......£39.95
Internal Floppy Drive A500/500+ £35.00
Internal Floppy Drive A600/1200+ ...£35.00
Internal Floppy Drive A1500/2000 ...£35.00

IDE Hard Drives

HARD DRIVES + AT-BUS CONTROLLER FOR AMIGA 500(+)/A1500/A2000/A3000/A4000

AT-Bus hard drive controller £99.00
Alfapower hard drive controller £99.00
Alfapower-640 640Mb hard drive £199.00
Alfapower-1.2G 1.2Gig hard drive £259.00
Other sizes please ring



IDE 2.5" Hard Drives

IDE 2.5" Hard drives come formatted and installed with Workbench. Cable, screws, software and instructions supplied. *(please ring for availability)*

80Mb	£69.00	340Mb	£109.00
120Mb	£70.00	420Mb	£119.00
★170Mb	£79.00★	540Mb	£129.00
250Mb	**£89.00**		

IDE 3.5" Hard Drives

IDE 3.5" Hard drives come formatted and installed with Workbench. Cable, screws, software and instructions supplied. *(please ring for availability)*

640Mb	£99.00	1.7GIG	£179.00
720Mb	£110.00	2.1GIG	£219.00
840Mb	£125.00	2.5GIG	£239.00
1.0GIG	£149.00	3.2GIG	£Call
★1.2GIG	£159.00★	3.8GIG	£Call

Memory

4Mb Simms.........£20.00 16Mb Simms ...£75.00
8Mb Simms.........£35.00 32Mb Simms...£160.00

Scanners

800 dpi £69.00
800 dpi with full OCR (last few so hurry) ...£79.00
400dpi with Migraphs acclaimed Touch-Up, Merge-it and full OCR £99.00

Miscellaneous Products

44pin 3 connector cable £10.00
44pin 2 connector cable £5.00
40pin 3 connector cable 90cm £10.00
AlfaDuo 44pin to 40pin Interface & IDE cables...£20.00
AlfaQuatro 3x40pin interface & IDE cables..........£39.95
DD floppy disks (50) *including multicoloured disk labels* £13.00
DD floppy disks (100) *including multicoloured disk labels* £25.00
3.5" Hard Drive Kit for A600/1200 *+ Install software* £15.00
Diskbox to hold 10 discs £2.00
Animal Jungle design and Dinosaur design ...£5.00
Optical Mouse Mat £5.00
2 in 1 Scanner/Mouse Pad *Can be used as a memo pad* £5.00
Amiga Power Supply 4.5 amp £19.95
Plain Wristrest £2.00

CD Cleaners - 1/2 price

CD Rom Cleaner £3.00
Automatic CD Rom Cleaner *(battery powered)* ...£10.00
Laser Lens Cleaner £4.50

Accelerator Boards

1230 33Mhz + 4Mb £135.00
1230 33Mhz + 8Mb £145.00
1230 33Mhz + 16Mb.....................£175.00
1230 50Mhz + 4Mb £179.00
1230 50Mhz + 8Mb £189.00
1230 50Mhz + 16Mb.....................£219.00

All prices include VAT. Please add £3.50 P&P for items under £30.00, £5.00 for items over £30.00, £8.00 P&P for Scanners, Speakers & Hard Drives, £10.00 courier for next day. Tax Free Export Orders Welcome.

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Network PC

David Taylor finds out that connecting your Amiga to your PC can be easy *and* cost effective.

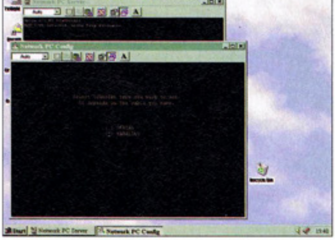
Swapping data between an Amiga and a PC has always been a problem. Using floppy disks is slow and laborious. A null modem cable linking up two comms packages has always seemed too much trouble. However, with my Amiga drive rapidly filling up with backups of picture files, a solution was necessary. So this new package was rather timely.

Unlike the high-end Siamese System, this is very simple. Designed to let you access the drives on your PC from your Amiga, once connected you should be able to copy seamlessly to and fro. You get software for both systems and a simple cable that attaches to the parallel port on both machines. If you are already using your parallel port you will have to swap cables when you want to use the system, or invest in some sort of switching device. Swapping cables is a pain because you must have the Amiga switched off.

"You get software for both systems and a simple cable that attaches to the parallel port..."

PLUG IT IN

When the cable is linked in, you just need to install the software. The Amiga side uses the standard Installer, but doesn't give you many options – the utilities are copied to your Sys: partition whether you like it or not. It also doesn't offer to add the system in to start at boot up either. In the end, it's better to simply leave an icon out on your Workbench.



Unfortunately the two programs on the PC side are DOS only – they sit in the task bar instead of running in the background.

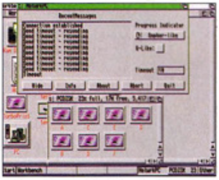
AMIGA GOLD FORMAT

BLESSING

The PC software is DOS 6+ and can be installed in *Windows95*, which is a blessing for most users. The downside is that after all the nice InstallShield setup, the two programs turn out to be DOS only. They do run under *Windows95*, but only as DOS sessions, which means they don't run fully in the background, but sit in the task bar.

Both the PC and the Amiga software have configuration utilities. The Amiga can be done partially in real time from a hidden interface (the program is launched as a proper commodity) and the rest is set up through an Installer script. The PC side has a simple set of DOS options, but both work very well.

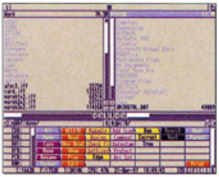
The whole setup procedure takes about five minutes. Then all you need to do is launch both programs – launch the PC side first. The PC is mounted with an icon on Workbench. There is a script that does this but you can just as easily mount it with the mountlist. Inside the new PCDisk volume that appears, you will find each PC drive, including floppy and CD drives. I even accessed my Jaz drive.



The interface on the Amiga side checks everything is working correctly and allows you to change some options.

NIGGLE

One slight niggle is that you keep having to select "Show all files". It soon becomes obvious that it's better to use a file manager.(A version of SID if you want to start playing animations etc.) You can even use CDs on the Amiga from the PC, but you must accept that transfer time is low. Sometimes you may need to make an assign for this to work, because the volume name will not be found, but this is a simple "assign AFCD14: PC:d". The programs automatically adjust file attributes when copying across and even truncate filenames correctly if you are running under DOS and not *Windows95*.



The system works best not on Workbench but using applications, like a file manager, paint package or music program.

Generally the system seemed very stable. I had to restart once but only had a few error messages and these were down to the retry timeout being set too low – not giving some drives time to spin up. You cannot access the Amiga drive from the PC, because of obvious problems with filesystems, so you do need to work from the Amiga. Transfer times turned out to be as low as 20K/second on an A1200 (although we achieved over 40K/second on an accelerated machine) but the infrequent use of a system like this means this doesn't matter. Still, more development can only make this very good program a flawless one.

DISTRIBUTOR: Weird Science
0116 234 0682
PRICE: £19.95
REQUIREMENTS: WB2+ and a PC!

SPEED: ●●●○○
About what you'd expect for a parallel transfer.

MANUAL: ●●●●○
It covered every aspect.

ACCESSIBILITY: ●●●●●
Very easy to set up.

FEATURES: ●●●●●
It works so well but could be improved with more options.

VALUE: ●●●●○
An incredible deal.

OVERALL VERDICT:
A must for serious Amiga owners who use a PC.

90%

NetConnect

Need to get connected? Darren Irvine takes a look at a complete software solution that doesn't cost the earth.

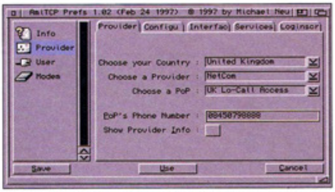
Some software and a modem – how exciting, I thought. When the rather large courier bag arrived at my front door I wasn't expecting anything special. But when I began to actually look at what I'd got, I soon changed my mind.

The point of this package from Active Software is not really the modem at all – although the 33K6 model supplied worked admirably. The point is the supplied software, which is available on it's own if you already have a suitable modem. (Though if you're still struggling with an old 14K4 modem, the bundle would be a much better bet.)

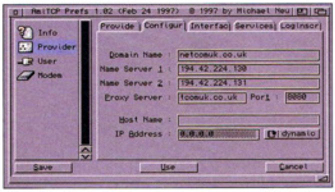
Basically what you get on the CD (it's available in floppy format too) is a bunch of Internet applications along with the full commercial version of *AmiTCP v4.5* (in itself worth £35). Each of the supplied software modules is the registered version – in other words you aren't going to be stung for any more Shareware registration fees – after you install this CD you'll be ready to go.



I can remember when setting up *AmiTCP* was a nightmare. Now it's simple enough for a magazine writer to do.



All the parameters needed to tailor your setup are available under the control of one easy to use program.



All the parameters needed to tailor your setup are available under the control of one easy to use program.

INSTALLATION

And let's talk about that for a moment: The *NetConnect* CD installed, easily. Yes. It installed. Easily. It seems pretty obvious but over the years, dealing with Internet software, I've come to expect a bit of a struggle each time I go to install something. Not so with the *NetConnect* system. Installation was painless, and even more surprising, configuration of the software was also extremely simple.

In the old days (cue: Tragic Net Old Timer, whining on about all these damn newbies) installing *AmiTCP* was a bit of a hit and miss affair. There were files to edit, with odd numbers and codes to put in, and no-one was quite sure if you needed this or that file or not.

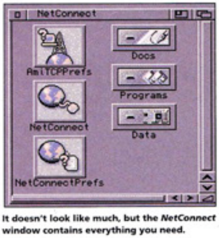
With the *NetConnect* system however you get an extremely neat little program called *AmiTCP Controller* which makes setting everything up a complete doddle. It has a list of most of the popular ISPs in a wide range of countries, and all you have to do is supply things like domain names and passwords, as supplied to you by your ISP – the set up program handles everything else (apparently the *AmiTCP* people are working on making it even simpler, and the new version will be included with *NetConnect 1.1*).

As well as making the actual Internet set up extremely simple, *NetConnect* itself, despite being very user controllable, is very easy to get to grips with, thanks to the very friendly *NetConnect Preferences* program. This lets you do things like add programs to the Workbench menu and customise the Buttonbar – all without ever having to manually edit a configuration file. This is the sort of thing that PC users take for granted: easy to install software that doesn't require much in the way of messing about to get it up and running. In fact, the *NetConnect* installation procedure is easier and quicker than the equivalent situation under *Windows95*.

All this means that even complete newcomers to the Internet can get up and running in a very short space of time. It's the sort of thing that people like me have been asking for for quite a while now, and it's great to see that someone has finally produced a system of this quality for the Amiga.

THE SOFTWARE

Along with the all-important *AmiTCP* system, the CD contains examples of just about every other Internet application that you will need. All the software supplied works well together and runs from a single Buttonbar, making the package very easy to use.



It doesn't look like much, but the *NetConnect* window contains everything you need.

THE MODEM

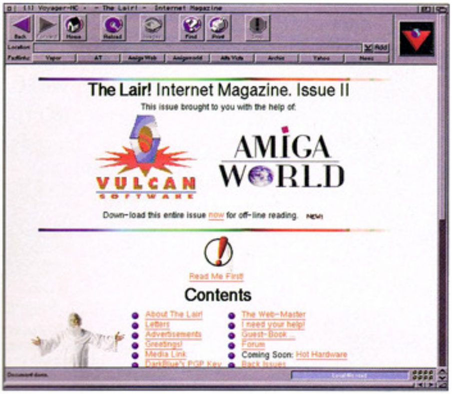
The unit supplied with the *NetConnect* bundle is a Dynalink 33K6 external modem, and it performed well in all tests. That the modem was originally intended for PC use is obvious – it comes with a headset/microphone unit and Windows software to allow Voice control of the modem. Don't let any of this put you off however, as the modem works fine with the Amiga, and the headset looks stupid anyway (at least on me, although that could be explained by the fact that I look stupid). If you really must wear the headset, it can be used in place of an ordinary phone (it plugs into the side of the modem). So you too can pretend to be a snotty receptionist in your own home.



The telnet client, *AmTelnet*, works without a problem.

The question as to which piece of software supplied is the most important, is a personal one. Some people will favour the Mail and News client, and some the Web browser. Luckily, both the *Microdot-II* Mail/News client and the *Voyager* Web browser are up to scratch.

In fact, *Microdot-II* is more than up to scratch. It's an extremely capable mail and news client that will do just about everything you need from such a program. It comes with full MIME support and also handles any type of mail transfer. The news side of things is fully threaded, and the mail client comes with a very handy filtering tool. *Microdot-II* also supports active hot links. This means that it will recognise an embedded URL in any message and let you launch the relevant application (Web browser, FTP client etc) by clicking on the highlighted link.



The *Voyager* Web browser works well, and new versions are appearing regularly.

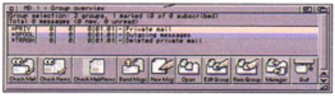
The choice of Web browser is also a personal one, but *Voyager-NG* is competent enough to satisfy most peoples' demands. It has full frame support, and also copes with things like GIF animation. In operation, *Voyager* worked well, and seemed to handle any page I could find. Again, this is something that PC users take for granted, but it's taken a while for Amiga browser developers to get their acts together. The author of *Voyager-NG* is constantly making improvements to the system, and by the time you read this the latest version should have support for both the HTTPS: protocol and Javascript. The latest version is available free to *NetConnect* users.



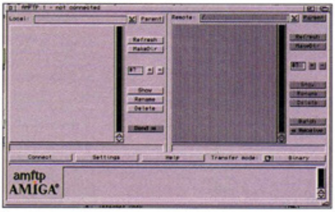
Configuring the *NetConnect* system to your requirements is simple.



The docking system gives you instant access to all of the software.



The news and mail client is powerful when you get to grips with it.



AmFTP does everything you could expect from an FTP client.

So, what else do you get? Well, how about an FTP client, a Telnet client, an IRC client, a Finger tool and a Terminal emulator? All of the supplied software has a similar feel which makes it very easy to get to grips with.

The supplied emulator, *AmTerm v1.1* can be used to connect to BBS systems or other dialup services, when you aren't using the Internet. The *AmFTP* client works well, and makes downloading files from remote sites extremely simple. The telnet client (*AmTelnet* – anyone see a pattern forming in the names here?) also works well, and shares a similar feel to *AmTerm*.

AmIRC is pretty straightforward in operation, and works well. It might not have all the bells and whistles of the PC standard client (*mIRC*) but does everything that you actually need. It's user friendly and handles things like DCC sessions perfectly. Also included is *AmFinger*, which let's you check out the status of other users on the Net.

CONCLUSION

The *NetConnect* package really does contain everything you need and is easy to use. It sounds simple, but basically you couldn't ask for much more from an Internet software package. It's good value for money too – especially the bundle including the 33K6 modem. So if you're considering getting online, *NetConnect* is the perfect choice for the Amiga user.

DISTRIBUTOR: Active Software
01325 352260
PRICE: CD: £59.95 CD & modem: £139.95
REQUIREMENTS: WB3+ 3Mb RAM & 10Mb+ hard disk space.

SPEED: ●●●●●
The supplied 33.6 modem worked without any problems.

MANUAL: ●●●○○
Info on CD was fine.

ACCESSIBILITY: ●●●●○
Almost the perfect package for the Amiga Internet user.

FEATURES: ●●●●●
Every application you'll need.

VALUE: ●●●●●
Top quality software.

OVERALL VERDICT:
If you need to get online, then this is the easiest way to do it.

92%

COMPATIBLE WITH ANY STANDARD VIDEO SIGNAL AND S-VHS!

ProGRAB S-VHS 24RT Plus

NEW LOWER PRICES!

The revolutionary S-VHS **ProGrab™ 24RT Plus** with Teletext is not only the best way to get crisp colour video images into your Amiga, from either live broadcasts or taped recordings, it also costs less than any of its rivals. This real time PAL/SECAM/NTSC* 24-Bit colour frame grabber/digitiser has slashed the price of image grabbing on the Amiga and, at the same time, has received rave reviews for its ease of use and excellent quality results. ProGrab™ has earned honours from just about every Amiga magazine and Video magazines too! And... with ProGrab™ you needn't be an expert in Amiga Video Technology, a simple 3 stage operation ensures the right results... **Real Time, after time.**



STAGE 1

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STAGE 2

With ProGrab's software, select an image you wish to capture using the on screen preview window and Grab (because the hardware grabs frames in real time, there's no need for a freeze frame facility on the source device). Once grabbed, simply download and view the full image on your Amiga screen. ProGrab also includes a Teletext viewing and capturing facility from either TV or satellite sources.

STAGE 3

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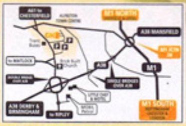
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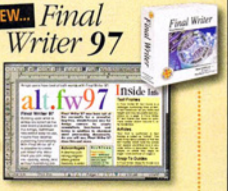


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**Final Writer 97 text frames are rectangles containing lines of text. These text frames can be any width or height and may be positioned anywhere on a page. Frames may have a border if required or can simply appear as body text within the document.*

*** An article is a term used to describe text which is contained in one or more text frames. Because text frames are linkable, an article could for example, begin on page 1 and continue on page 3. An infinite number of articles can be created within Final Writer 97 documents.*

Creating a text frame in Final Writer **97** is simple. Just click the mouse on the page where you want your text to begin - and start typing. The frame can then be modified to your preferences once text has been entered. Text can be fully formatted within a frame just as easily, or edited at a later time as you prefer.

System Requirements: Amiga with a Hard Drive, Workbench 2.04 or above and a minimum of 2.5Mb RAM (more recommended).

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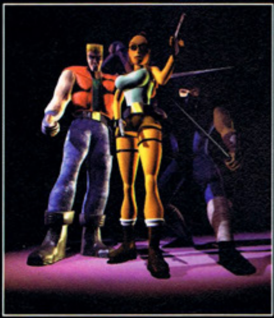
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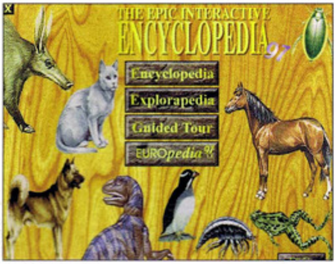
Issue 56 – Out Wednesday 14th May

Epic Interactive Encyclopedia 1997

Reluctant student Dave Cusick dons his reading glasses and looks at the latest release of Epic's CD reference work.

The latest release of the *Epic Interactive Encyclopedia* offers a wealth of enhancements and a huge increase in the number of subjects covered. Installation is initially handled via the ordinary Commodore installer, but after a few moments a screen pops up informing you that index files are being generated. The index generation process is only supposed to take around five minutes, but I had time to watch an entire episode of the Simpsons whilst my A1200 hard drive churned away...

Starting the *Encyclopedia* from a standard PAL mode is essential unless you can survive without the bottom portion of the screen; when started from my normal Multiscan Workbench screen, the entire program seemed to want to run in a somewhat shaved-off screenmode. Unfortunately an interlaced PAL screenmode is used throughout, making long sessions extremely tough on your eyes.



All of Epic's features are accessible from this attractively presented menu screen.



MAN WHO?

The main *Encyclopedia* consists of around 16,000 entries on a wide variety of subjects. Some of the entries are concise, well-written summaries with images or sampled sound effects. Conversely some are, to say the least, irritating and useless. Looking up Man, for instance, results in "Abbreviation for Manitoba, Canadian province"

If you want to learn about humankind, you have to look up Human (since there is no cross-referencing), whereupon you will be shown several lines of text, and a brief video clip of a rendered rotating male torso. Comprehensive is not a word which could yet be accurately applied to the *Epic Encyclopedia*.



The musical room – one of the eight rooms in the Explorapedia.

On the other hand, the multimedia aspects of the *Encyclopedia* are well implemented, with over 4000 images, over 200 film clips and more than 200 sound samples.

In addition to a scrollable list of entries, there is an invaluable search function. Unfortunately if an entry does not exist on a topic you are simply presented with information about Aachen, the first entry. A brief 'unsuccessful search' message would have been nicer.

It is possible to expand the *Encyclopedia* with your own entries, as well as those which are available from Epic on floppy or via their Web page. It is this expandability which makes the program a more attractive proposition and creating your own entries is quite straightforward. A paper-based reference work, whilst being more detailed, does not allow this freedom.

From the main menu there are three options available besides searching the main *Encyclopedia*. The first of these, the Explorapedia, is designed for children, and consists of eight themed rooms. The objects in these rooms can be clicked on whereupon they will briefly animate and an appropriate sound effect can be heard. In the "learn" mode there are a few lines of text to accompany each theme and a list of plenty of related entries from the *Encyclopedia*.

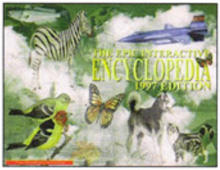


There is also an extremely welcome Guided Tour option. When this is activated, a chap called Russell introduces himself and offers to explain the functions of the various buttons on each of the screens that comprise the *Epic Encyclopedia*.

CONTINENTAL

Finally, there is a small Europedia section offering statistics, national anthems and short descriptions of various continental states. This is particularly nice and very useful in these turbulent times.

The critical nature of much of this review may suggest that I see the *Epic Encyclopedia 1997* as rather unimpressive. Actually nothing could be further from the truth. *Encarta '97* it isn't, but Epic's revised effort is still a brave attempt at producing a usable multimedia information resource. The interface can seem a tad quirky at times, and the entries a trifle brief. But although it still falls some way short of being genuinely useful for adults, children with the patience to learn to navigate the *Encyclopedia* should find it educational and wholly absorbing.



The presentation throughout the *Encyclopedia* is extremely good.

From the Explorapedia several lists of related entries are available.





DISTRIBUTOR: Epic 01793 514188
PRICE: £29.99 & £1 p&p
REQUIREMENTS: AGA Amiga, 4Mb RAM and CD-ROM drive.

SPEED: ●●●○○
Sufficient, but nothing more.

MANUAL: ●○○○○
It hasn't got one; but then it doesn't need one.

ACCESSIBILITY: ●●●●○
Especially suited to school children.

FEATURES: ●●●●○
Everything you'd expect and a little more besides.

VALUE: ●●●●○
Cheaper than books in the long run.

OVERALL VERDICT:
Far from indispensable, but still informative and curiously captivating.

79%

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QuickCam

Pat McDonald puts his David Bailey hat on and comes up with some rather disturbing results!



Capture images on your Amiga with a PC QuickCam? There are many different devices to read graphics from the real world into a digitiser but this solution is potentially the cheapest. Although all is not as it seems. All you get for £40 is a strange looking adaptor and a disk. with a program less than 10K in size.

This adaptor is designed to connect the parallel and floppy ports of an Amiga with a black and white Connectix QuickCam – it doesn't work with colour QuickCams. Power appears to be drawn through the floppy port. Buyers with extra external floppy drives will have to position the last floppy drive close to the parallel port. Extension cables can in theory be fitted, although they are sold as video port extension leads.

"Even a humble black and white security camera will give a better picture than a QuickCam."

Some years ago, Connectix devised VIDEC – VIDeo Digital Enhanced Compression. The theory was to compress the data from a live CCD camera so it could be transmitted down telephone lines. The idea being two computers fitted with such systems can send each other live pictures.

This interface and hardware combination does not have this capability – although the software is under development. The QuickCam comes bundled with PC and Macintosh software for Internet "C U See Me" connections. But it doesn't work as far as the Amiga is concerned.

The person who wrote that tiny 10K program – Tony Philipsson – has instead opted for a simple IFF save option. You can save individual IFF pictures or sequences. If you want ANIM files, however, you will have to use a different program to join the pictures into one single file.

That's it. Oh, there are the controls for the QuickCam – saturation and contrast controls (0-255) and also quarter, half and full resolutions (80x60, 160x120 and 320x240). All of these resolutions suffer from every other vertical line being a solid grey line. This seems to be built in flaw of the QuickCam. There is another button to change from 64 shades of grey to 16, but it doesn't appear to work yet.

Because the software renders every frame to IFF, it's quite slow. QuickCam will record about 14 IFF frames per second to hard disk but that's at lowest resolution with an '030 based Amiga and fast hard disk.

SUMMING UP

Connectix are the real villains of this piece. They have fooled people into believing that real live C U See Me is desirable. Perhaps, but the truly pathetic resolutions that QuickCam supports are just not worth having. Even a humble black and white security camera will give a better picture than a QuickCam, and it costs less too. A600 and A1200 owners can get the VideoMaster grabber for such a camera for only £70.



The QuickCam lets us get this close without losing focus.



C U See Me – if you want to show people how ugly you are then QuickCam is the device that makes it possible.

Owners of other Amigas may be tempted to get this adaptor, but it really isn't worth the hassle unless you are prepared to settle for junk quality images. Eyetech and Tony P are not really to blame; the software performs admirably for its size, working well on both 15 and 31KHz graphic displays.

It seems that manufacturers of camcorders and film cameras are bringing out ever more "digital" units to plug straight into a computer. But the vast majority of these digital systems are inferior to their analogue video and film equivalents. I'm sticking with the full PAL overscan 768x576 resolution thank you. I refuse to downgrade to PC resolutions. AF

DISTRIBUTOR: Eyetech 01642 713165
PRICE: £39.95 for adaptor, £90 for B & W QuickCam
REQUIREMENTS: Workbench 1.3 or later

SPEED: ●●○○○
Not fast at recording sequences.
MANUAL: ●○○○○
A page of text on disk. Wow!
ACCESSIBILITY: ●●●●○
Not easy to get lost with this.
FEATURES: ●●○○○
It records 64 grey scale IFFs and nothing else.
VALUE: ●●●○○
Nothing cheaper but with these limitations that's not surprising.
OVERALL VERDICT:
You'd have to be pretty desperate for grey scale IFFs to consider one of these.

57%

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ProGrab 24 Sound Sampler



The ProGrab 24 RT allows you to grab images in full 24-bit colour.

Looks nice, now you just need some tunes. John Kennedy tests this new sound sampler.

ProGrab provides a quick and easy way of getting good quality images from a video camera or VCR into your Amiga. The basic ProGrab is of a small white box which connects to the parallel (aka printer) port of any Amiga via a lead, and captures single images or a sequence of frames in colour or monochrome.

However, the addition of the optional PCMCIA adaptor for £40 will free up the valuable parallel port – assuming of course that you have an A1200 or A600 with the slot free. Using the PCMCIA interface has the secondary advantage of speeding up the video grabbing process slightly, and this is most useful when making animations.

This is where the new ProGrab Sound Sampler comes in. The sampler consists of two small packs; one connects to the now free parallel port, the other connects to a joystick port. The joystick port powers the sampler, but there is a through-connector for your second joystick or mouse. There's no through-connector from the printer port.

The sampler will record in mono or stereo, and has a pair of standard phono style sockets. There's also a lead with a single stereo 3.5mm jack plug.

Using the sampler with ProGrab is particularly easy, as all the software support is already built in. When defining the number of frames of your animation, you simply select the "Animation with Audio" requestor. This greys out the frame rate settings, and the unit will now grab them as fast as it can by default.

From the Control Panel you can now choose to hear the sound when watching the video preview window. I found that after a few grabs, the sound started to break up: this is a flaw in the ProGrab software rather than anything to do with the sampler. Once you are ready to record, hit the button and the video and sound will be captured.

The limiting factor to how much footage you can record in one go is RAM. With 4Mb of fast RAM, I was able to capture just less than a hundred monochrome frames with accompanying sound-track. Using stereo sound or a faster audio sampling frequency will obviously reduce the number of frames further, but lucky folks with 8 and 16Mb SIMMs will be able to capture considerably more.

SOUND ADVICE

The sound sampler is not solely for use with the ProGrab hardware. Any Amiga sampling package will support it: just plug it in. Sadly though, documentation is limited to a few small lines on the back of the box: great if you already know about sampling, not so great if you are new to it all. It's also disappointing to discover that no software is included – if you want to record sounds independently of the ProGrab then you need to sort that out for yourself.

Sound quality is good, but not a gigantic leap over anything else I've heard. Experimenting with the Eyetech VideoMaster's hardware (which has sound sampling built in) didn't leave me convinced of the "hi-fi" nature of the ProGrab hardware. That said, at the price it's worth spending the extra fiver over the standard sampler, which is also available. After messing around for a while, it occurred to me that there is an obvious need for some good editing software. The Amiga is a great multimedia machine, and hardware like this is pure fun.



The hills are alive with the sound of music – thanks to ProGrab's new sampler.

SOUND SAMPLING

Sound sampling on the Amiga evolved its own standards very quickly. Samplers always connect to the parallel port, and most software will drive any sampler. *OctaMED* or *SoundStudio* will happily use the ProGrab sampler.

The sound samples themselves are invariably stored in an IFF format, which means that they can easily be interchanged. Samples you grab can be used in sound modules, multimedia utilities or even triggered by Workbench.

DISTRIBUTOR: Gordon Harwood
01773 836781
PRICE: £24.95
REQUIREMENTS: Free parallel port

SPEED: ●●●●●
The use of a video DAC means this will sample as high as your software can.

MANUAL: ●○○○○
Almost non-existent.

ACCESSIBILITY: ●●●○○
With ProGrab – easy, otherwise you'll need to source your own software.

FEATURES: ●●●●○
Converts sound into IFF files.

VALUE: ●●●○○
OK if already got PCMCIA adaptor.

OVERALL VERDICT:
Needs docs and software if it's to be used outside the ProGrab environment.

80%

Blitz Basic 2.1



Jonathan Duke

We want to see more reviews written by you. Tell us what you think about *Final Writer, Personal Paint, PageStream, CanDO* or *Imagine*, and we'll print it for everyone to see. Remember we would also like a photo of yourself and if you have something you've created with the software, or a photo of your hardware set up, send that along too!

Surely everyone has heard of this fantastic programming language by now? The fact this it is easy to learn and yet so fast and powerful means there is very little you can't do.

By far the most popular application for this language is to write games, and the speed combined with the simple support for handling the blitter, make it easy to see why *Blitz* is often chosen over assembler for this purpose. Indeed, if you need proof, there are many commercial games written in *Blitz* – *Super Tennis Champs, Worms* and *Super Skidmarks*. Need I say more?



Blitz's compiler makes Basic executables into speedy little standalone programs.



Mean anything to you? Well then, you're already on your way to a coding masterpiece, just like Jonathan.

However, the feature of *Blitz* that is often overlooked is that it is more than up to the task of writing serious programs. In the back of the manual you'll find a list of all the operating system calls that can be used, and control over Intuition and even support for *GadTools* mean that designing user interfaces and the like is easy. I am actually surprised that there are not more applications written in *Blitz* and I would urge assembler programmers in particular to have a go.

LIGHT WORK

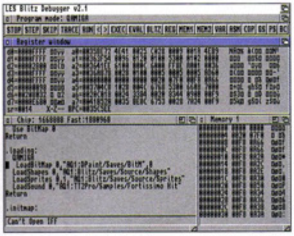
Blitz can be used to make light work of the simpler stuff, whilst low level work is dealt with by the in-line assembler – another bonus!

The editing environment itself is fast and fairly user friendly. The only gripe I would have involves the non-standard way of dealing with cut and paste functions, although installation of *SuperTed* from the *Blitz Support Suite* (*AF94* 86%) soon remedied the fault.

The example programs included are also excellent. If you take a quick glance through these at what is possible in just 6K (check out examples/blitzmode /dart_poly.bb) believe me, you too will be suitably inspired.

The cost of this language may also be a surprise. Considering the power and flexibility you get with it, £30 is a small price to pay. The *Storm C* compiler costs over £200, is nowhere near as easy to learn and use, and, some would argue, is no more powerful.

Overall, we need to get as many people programming the Amiga as we possibly can, and if *Blitz* doesn't manage to achieve that goal, I don't know what will. To miss out on it would be foolish – please, give it a go – you could make a lot of money.



Blitz might look complex, but its looks belie its real ease-of-use.

BEN SAYS

Although I'd be the first to admit a complete lack of programming know-how, it's obvious that *Blitz Basic* has proved an easy move for most people from Amos. The number of Shareware games coded in Blitz on Aminet is astounding and starting, at last, to outnumber their Amos counterparts, and now you'll even find serious utilities coded in Blitz Basic, fast enough for proper programs, easy enough for beginners. We gave it a whopping Format Gold winning, 92%.

DISTRIBUTOR: Guildhall Leisure
01302 890000
PRICE: £29.99

OVERALL VERDICT: Still the best your money can buy.

94%

CD-ROM round-up

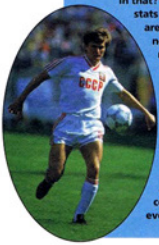
Four more spinning platters fall beneath the analytical gaze of our very own Nick Veitch.

WORLD CUP CD-ROM

Wisedome 0171 702 9823

Have you ever wondered who, in Sweden '58, thrashed Argentina 6-1 in the first round, but failed to go through, losing a play-off game against Northern Ireland?

Well, you could always find some tedious papery thing bound together with string that would tell you the answer, but where's the fun in that? If you really want to scour the stats for strange anomalies, there are much easier ways, most notably in the form of this rather excellent CD-ROM for AGA Amigas (and CD32).

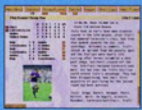


This CD provides a clean and easy to navigate front end to all sorts of information on every World Cup competition from 1930 to 1994. There are details and scores on all the matches from all the rounds, and even a special audio commentary to each stage of every competition. I won't claim it's just like being there, but it does help to recreate the emotions of the time.



All together now "three lions on my shirt, never stopped me dreaming..."

The statistics are organised in various ways, so it is easy to follow one particular nation's rise and fall, or just look in detail at one particular competition. Many of the individual matches are accompanied by photographs, mostly of very good quality.



Functional and fast are two words beginning with F which adequately describe the interface.



The whole is let down a bit by some atrocious spelling and grammar mistakes. Fortunately, these don't get in the way of the facts (though I suggest that Wisedome run a spell-checker over the text before they release the forthcoming floppy version).

It was also disappointing to find that only a dozen or so players were picked out for notoriety. There was plenty of space for biographies on the likes of Pat Jennings and Shilton etc.

Still, an interactive and attractive feast for footy fans.

VERDICT 80% £14.99

ERIC SCHWARZ CD ARCHIVE

AMIGA GOLD FORMAT

Weird Science 0116 234 0682

It is quite surprising, given that Eric Schwarz is probably the best known artist/animator on the Amiga platform, that nobody has thought of this before. But here it is, the complete Schwarz collection, with all of his famous Flip the Frog and Amy Squirrel animations, plus a lot more stuff you've probably never heard of.



There are plenty of 3D models (in *Imagine*, *Sculpt* and *Lightwave* format), AGA, OCS and 24-bit images, tutorial files, animations for video, icons in various sizes, MovieSetter presentations and plain anim files.



Cor, even Amy has one of those Psygnosis stickers...

Of course the jewels in the crown are the MovieSetter animations. The Dating Game, At the Movies, Amy Vs Walker and the rest – not to mention all those Aerotoons. The quality of animation is superb, and even though I haven't actually seen many of these animations in years, they have only improved with age. They are terribly well put together, although MovieSetter can claim some of the glory for this – what other software can you think of which can layer brushanims and sync sounds? Anyway, you will also find some excellent images, a few drawers of other artists work and a host of tools to view them all with.



Eric has also played about in *Lightwave* and *Imagine*, and the models are on the CD.





Amy was always the classy one, while Clarisse (left) has other assets...

The collection doesn't include any of Eric's more recent work, such as the Sabrina online cartoons, but is fairly comprehensive up until then. Although it isn't full (only 188Mb are used), the quality of the content is outstanding. Highly recommended.

VERDICT 95% £19.95

ASSASSINS VOL 3



Amongst other great games, you'll also get a look at *Uropa2*.



"Has anyone seen my legs?" Levitation's what you need in this great adventure.



Sorry, it's *Uropa2* again, but this is such a great game... and the great news is that it will be commercially released by Vulcan soon.



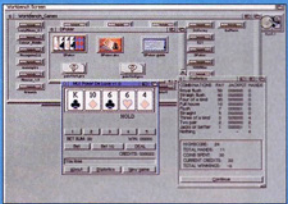
Some of the games may not look great, but most play well anyway.

Weird Science 0116 234 0682

Both the previous *Assassins* CDs have received prestigious *AF* Gold awards (*AF69* 95% and *AF82* 90% respectively), so this disc has a tough act to follow.

If you have the previous two CDs in this series (and if you don't, I strongly suggest that you get hold of them right away) then you might find that there are a few less games on this one. In the main, this isn't due to the compilers being lazy, or indeed the lack of excellent games to be put on there, but the fact that many of the games on this CD are a lot bigger – the general trend for games is for multi-disk epics these days.

Also, I suspect that the interface takes up more room than on previous versions. This is actually a good thing, because it is an improvement on the not bad menu system of the last volume. You can scroll through the games on offer, immediately determine their system requirements and even read the doc files without leaving the comfort of the attractive display.



There are plenty of Workbench compatible programs on the CD too, like this poker player.

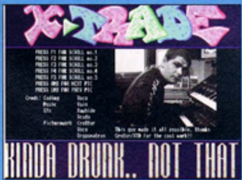
As for the games there are many, ranging from the sad but compulsive to the excellent. Thankfully, more and more programmers are aware of higher specced Amigas, so just because you have an '030 or better doesn't mean you won't be able to run most of the games. Every one we tried even worked on an A4000/040.

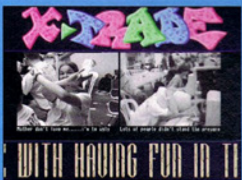
There are plenty of games in different genres, ranging from simple Workbench classics like *Poker* and countless *Tetris* variants, through top action racing games and shoot-em-ups to top strategy games. The pick of the crop for me is *UFO: Enemy Unclothed*, which is most amusing and very playable.

There are also plenty of hints and cheats, saved game editors and tools. This CD is essential for any serious gamer.

VERDICT
95%
£19.95

GOLDEN DEMOS





Missed The Party? Never mind, there are lots of event demos on here too.



Some of the slideshows are definitely worth a look, just for their great images.





Another great picture, partially obscured by the once in vogue scrolly message.

Weird Science 0116 234 0682

For some reason, producing demos is still one of the most popular pastimes for many Amiga owners. This CD is, I suppose, what you would call a "best of" compilation of demos through the ages, from the early days of vector nonsense, through textures to the current day.

The disk is pretty full – over 620Mb are used, and everything on here is either LHAed or DMSed, so it isn't as if any space has been wasted. However, this can make accessing them a bit of a pain. Although the disc does have a comprehensive AmigaGuide file to take you through the various sections of the CD and extract any file you want.

The problem with this approach is that once unDMSed, many of the disks are non-DOS (even slideshows), so you end up having to reboot the machine anyway. This is not the fault of the compilers, but it would perhaps have been easier to provide the demos with their own icons and scripts for decompression.

Some of the demos are actually multi-disk sets, so you will have to decompress all the disks before you can play with the demo. That said this disk does represent a kind of historical archive of the progress of Demos (it's a shame the AmigaGuide doesn't give original distribution dates) and includes plenty from famous teams such as Anarchy, Budbrain, Red Sector and so on.

VERDICT
78%
19.95

Workbench

Panicking about your power supply? Stuck with irritating icons? Or just ready to learn about null modem cables? Graeme Sandiford has all the answers. Send any queries to: Workbench, *Amiga Format*, 30 Monmouth Street, Bath, Avon BA1 2BW.

HARD LUCK DRIVE

Help! I am the proud owner of an Amiga 1200 but I'm having some problems. I have a Magnum RAM card with an extra 2Mb RAM and a 360Mb hard drive. While trying to load *Mortal Kombat 2* my Amiga suddenly died. I did a soft boot followed by a complete power off, yet still my beloved Amiga would not start.



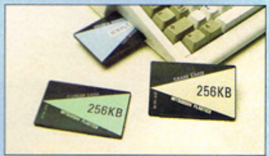
I disconnected the hard drive then it started. After a small pause I heard my floppy drives kick back in and was presented with the usual Kickstart 3.0 screen. I then reconnected the hard drive which subsequently started whirring. After a soft boot I got my usual Workbench screen and was able to run a virus check using *Virus Checker 8.3* by John Veldthusis. I tried to run other programs like *Project X* and once again – crash! I don't want to format my hard drive if I can help it because it will take a long time and be hard work to re-install. These problems have been occurring for several days now and it's beginning to get on my nerves.

Robert Tabinor
Stoke-on-Trent

For some reason your hard drive is really set against you playing games. The best advice I can give is to use the "secret" boot menu (hold down both Amiga keys after a warm reset) and from the Boot Options screen, deactivate all hard drive partitions. This will temporarily remove the hard drive from the system, until the next reboot.

A Quick guide to.. EXPANSION SLOTS

1. Both the A600 and A1200 have two expansion slots: the trapdoor, and the PCMCIA slot. The trapdoor slots are totally incompatible between the A600 and A1200.
2. Although possible, expanding memory via the PCMCIA slot is not recommended. Access is slow, and the cards themselves are very expensive.
3. The A600 trapdoor only accepts a 1Mb expansion card, with or without a battery backed clock.
4. The A1200 trapdoor will accept memory cards and accelerators. Accelerators feature 68030 and faster processors, as well as memory expansion slots.
5. Memory is added to most A1200 cards via SIMMs (Single Inline Memory Modules) which are thin strips of circuit board containing the memory chips. SIMMs come in several sizes, including 1, 2, 4, 8, 16 and 32Mb.
6. The A4000 has SIMM sockets on its motherboard, ready for 1 or 4Mb SIMMs. All A4000 accelerators have more SIMM sockets for serious memory collectors.
7. The PCMCIA slots on the A1200/600 can be used for various peripherals, including SCSI interfaces and video digitisers (and potentially modems and Ethernet cards).
8. Some A1200 accelerator cards feature their own expansion slots for adding proprietary SCSI interfaces.
9. The A1200 and A600 have an internal IDE interface. It's possible to connect a hard drive here, and via a buffered interface, a CD-ROM drive. It's also possible to connect a SCSI adaptor to the IDE interface.

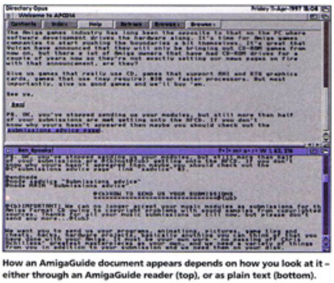


The PCMCIA slot is available for expanding your machine. Use it to connect to a variety of peripherals.

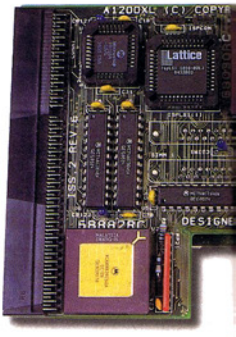
DEFECTOR!

By the time you read this I will have purchased a PC. Obviously I would like to use it with my Amiga via the Siamese system. I have an A1200 with a 520Mb hard drive.

1. Can the Siamese be used to access the PC's modem and printer?
2. Can I use an A1200xl with 8Mb fast RAM with a Surf Squirrel?



How an AmigaGuide document appears depends on how you look at it – either through an AmigaGuide reader (top), or as plain text (bottom).



ICON NOT SEE CLEARLY

I have an A1200 with a hard drive and a Mitsumi CD-ROM drive. The other day I was installing a program from one of your CDs into my Work partition, using the installer that was with the program. All went well but when I went to double click on it, the disk icon had changed. It now looked just like the old floppy disk icon on an A500.

Please can you tell me how I can get my disk icon back again without losing all my programs. I now have a floppy disk icon for Work and a 'drawer' icon for the Workbench.

Matthew John Oliver
Dorset

It sounds as though the installer went bonkers, but don't panic as it should be fairly easy to fix. You'll need to find the Icon Editor program which comes with every Amiga Workbench distribution. Run it and then drag-and-drop the first broken icon into it. Make sure the icon type is set to "Disk" (from the Type menu), as it is for a disk partition. Now drag and drop the icon from your Workbench partition into Icon Edit's main window and choose Save As... from the project menu. Make sure that you select your Work: drive and save the file as disk.info.

Alternatively, there are a number of tools that allow drag 'n' drop replacement of icons, including programs that come with the two most popular Workbench icon replacements – MagicWB and NewIcons.

If all this doesn't work, you can always create a suitable disk icon from scratch using IconEdit and a paint package like PPaint that allows you to copy and paste brushes to and from the clipboard.



Use the Icon Editor to reset the type of your disk icon. And improve its design too!

3. Where is AmigaGuide and how can I use it?

(no name or address supplied)

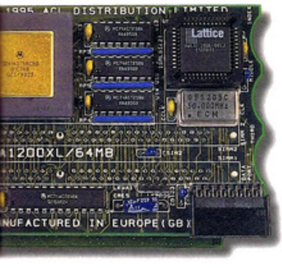
No, no you fool! Don't do it! Etc. etc. Anyway:

1. You should be able to use the printer and there are definite plans for modem support. The best thing to do is telephone the main supplier (HiQ 01525 211327) and ask them what the current status is.

2. Yes. The A1200xl is PCMCIA friendly.

3. There is an AmigaGuide datatype which Multiview *will automatically use when a suitable AmigaGuide document is loaded. You should also find a dedicated AmigaGuide file viewer on the Workbench somewhere: try in the "Utilities" drawer. You have probably used it hundreds of times already, as it's used every time you open an AmigaGuide document – commonly used to provide instructions or readme files on disk.*

If you want to write your own documents in AmigaGuide format, start with a plain text file and insert the special AmigaGuide codes into it as you type. See an existing file for details (load it into a text editor). There is plenty of AmigaGuide documentation on the Internet and an example on the AFCD *called Ben_Speaks!*



The *Format* Gold award-winning A1200xl has two SIMM slots for 64Mb of memory, a battery backed clock and is PCMCIA friendly.

RECURRING RESET

I have an A1200 with external disk drive, a Hawk RAM accelerator board with 4Mb and 33MHz FPU, a networked CD[32] and an Epson Stylus IIs colour printer. My problem is that the computer now reboots itself.

When it does this it looks as if there is a loss of power but I tested the PSU on a friends A500+ and it seemed to work fine, running his computer for six hours without a hitch. Also, when the computer is rebooting it will sometimes lose power completely and sit there useless for about five to ten seconds.

I have tried many things, including removing part of the add-ons from each port. After that I removed the hard drive, floppy and even the keyboard but without any luck. The only thing I can do when it cuts out while I'm using it, is curse and swear. Any ideas?

Ian Hendry
Greenock

You so nearly got it right. Instead of testing your power supply with your friend's system, you should have tested his PSU with your Amiga. The PSU supplied with the A500+ was usually better than that supplied with the A1200. Borrow it and see if that fixes the problem. If it does, you should either swap it with his (you have established that yours works) or buy a more powerful model.

A600 EXPANSION

I have an Amiga 600 with 1Mb trapdoor RAM and an 80Mb hard drive.

1. Can I add more memory using SIMMs or through the PCMCIA card slot? If so, can you give me some company contact numbers?

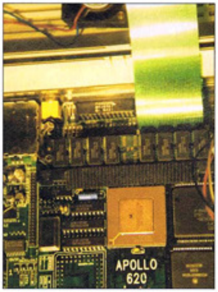
2. I am considering buying a CD-ROM drive. Which one is best for the A600 for around £150? Would I need a new a power supply?

3. I am trying to write a game in Amos similar to the Countdown TV show. My problem is trying to print a random letter on the screen when I press a certain key, e.g. I am trying to use a=RND (A,E,I,O,U) to pick a random vowel when I press the "v" key but I keep getting error messages.

Keith Forrester
Walsall

1. Sadly you have already exhausted the easiest expansion route – the trapdoor. This is limited to 1Mb of memory. There are two ways left: the first is the Apollo 68020 accelerator card for the A600, which has a SIMM socket. Unfortunately, this card has proved to be on the unreliable side and I couldn't recommend it. The second way is via a PCMCIA memory card. These are hard to track down and expensive – £140 for 1Mb from Memory Bank (0181 956 7000). You really would be better buying a second hand A1200 instead.

2. Your price range limits you to an ATAPI/IDE device such as those sold by Golden Image. Yes, there is a very good chance you will need a new PSU when you add a CD-ROM to your set-up.



The Apollo A620 has been discontinued due to the problems that people had fitting it.



The 8x IDE CD-ROM drive from Golden Image is very quick and very cheap.

Continued overleaf ➡

3. I'm not an Amos expert, but as far as I know, the RND function returns a number not a string. You will therefore need to create a string containing all the vowels (v$="AEIOU") and then use RND to pick a number from 1 to 5. You can then extract the necessary vowel using the MID$ function. Alternatively use an array (v$(1)="A" and so on).

PICK A CARD

I have an A1200, Philips monitor and a PC mini tower with two disk drives. Someone in a computer shop gave me a memory card. He said he didn't know if it worked but I took it home and got a new battery for it. I have had it checked over and was told that as far as they could tell everything was okay, but when I put it in the machine the computer failed to recognise the card.

The only writing on it says (REV.B RCA120). I put 2Mb of RAM on it but I get nothing. Could you please help me find out the name of the manufacturer, and tell me if I am doing anything wrong with it?

David Richards
Redruth

When you say memory card, do you mean an A1200 trapdoor expansion card rather than a PCMCIA memory card? I'm assuming the former, and I'm afraid I have no idea who manufactured it. The battery will be for the battery backed clock – does that appear to work? If not, then there is a good chance the card is knackered. If it does, then don't give up. Some cards will only work with certain SIMM sizes: if you can find a 4Mb one, that should be guaranteed to work. You may need to experiment with some jumpers on the card, if there are any. Good luck!

NOT SO MAGIC!

I own an A1200 and recently got a copy of the *Magic Workbench and Extras* disk. I installed the main program, but when I came to the 'Extras' problems started.

The *Extras* disk contains icons for stopping the disk drive clicking, changing your pointer, busy gadgets and also one called NICKPREFS. But when I click on any of them a requestor window appears, saying that you must put NICKPREFS in your C directory between the startup-sequence and IPREFS.

This is where I get stuck! Please, please can you help me? I need to know how to get into my C directory and then how to put NICKPREFS in the right place.

Jackie Meadows
Tarleton

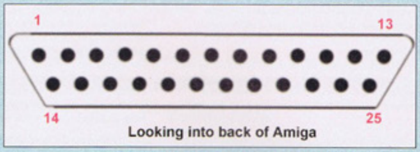
First of all, you don't need NICKPREFS on the A1200 so don't go to lots of trouble for nothing. There are plenty of other utilities which will stop the disk drive clicking and change the pointer and I'd advise you to try those first!

If you want to persevere, you are going to have to edit the file called startup-sequence in your S: directory. To do this, open a Shell and enter "`ed s:startup-sequence`*". You can then scroll through the file (this is the one which your Amiga uses when it boots – don't mess it up!) and find the line with IPREFS on it. You'll need to insert a RUN*

Diagram of the month

A NULL MODEM cable can be extremely useful. You can use it to connect two Amigas for playing multiplayer games, or link two computers in order to send data via a terminal emulation program.

The Amiga has a standard RS232c serial port at the back in the form of a 25-way D connector. Many computers have a 9-pin variation on this, but adaptors are readily available.



The standard 25-way D connector that you will find at the back of your Amiga – this is the serial port.

Here are some of the more important connections.

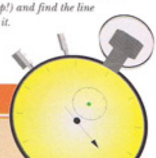
PIN NUMBER	CODE	DESCRIPTION
2	RX	Receive data
3	TX	Transmit data
4	RTS	Request to Send
5	CTS	Clear to Send
6	DSR	Data Set Ready
20	DTR	Data Terminal Ready
7	GND	Ground
8	DCD	Data Carrier Detect



These are the pinouts for a standard 25-pin to 25-pin null modem cable. They are very simple to make, you can even get cabling and plugs that don't require soldering.

To construct your own NULL MODEM cable, you need to swap over pins 2 and 3, and keep the ground common. This should suffice for most connections, although it's possible that you will need to connect DTR on one side to DSR on the other, and also connect the RTS from one side to CTS and DCD on the other, and vice versa.

TIME GENTLEMEN, PLEASE!



Please could you help me solve a problem with my computer's internal clock and calendar. Last year I bought a Magnum '060 accelerator card from Wizard Developments. When I installed it I set the time and date using the preferences.

When I finished, I switched off from the mains but when I next used the computer I noticed that the date and time had reset itself to the time when the card had been installed – 22nd May 1996 09:30 am. I reset the date and time again, this time using shell and then re-booted (warm boot) the system – the date and time stayed as I had set it. So I then switched the computer off, waited a while and then switched it back on, only to find that it had reset itself back to 22nd May 1996 etc.

I then removed the accelerator and replaced my old Power Computing RAM expansion card and switched on the computer. I set the clock and date, switched it off and then, after a while, back on again. The clock and date were as I had set them.

I phoned Wizard who told me to do what I had already tried, (using shell). I said I wanted them to check the accelerator card's clock, so I returned it to Wizard. They sent it back to me saying that they could not reproduce this problem and they could not help me any further.

This might seem trivial but it is really annoying. I write a lot of letters in *Wordworth* using the automatic date insert on my templates and because of this problem I have to insert the date manually. This is the same for other programs such as *Datastore* and *Organiser*.

Andrew Reed
Waltham Abbey

An unusual problem. At first glance it seems pretty obvious that the '060 card's battery backed clock circuitry is malfunctioning, but if Wizard say that it is working then we have to discount that. I'm still not convinced though. If you can, try the card in another Amiga and if it still doesn't work, ask Wizard for a replacement.

In the meantime, there is something you can do. There are several utility programs on Aminet which will "fake" a clock by storing the date on the hard drive. Obviously it's not perfect, but if you use your Amiga regularly at least the date will be correct to the nearest day. If you need more accuracy, one of the hardware clock modules which connect to the parallel port would be another option.

NICKPREFS command here. If all this means nothing to you, then I strongly recommend you leave the startup-sequence alone. If you mess it up, your Amiga may not boot properly.

EXPANSION PLANS

I own an Amiga 1200 with a Western Digital 850Mb hard drive, model AC2850F, Version 28.2. I am very interested in an accelerator and CD-ROM drive.

1. What sort of speed increase would one of the new £99 accelerators give me? I do lots of different things on my Amiga, from playing *AB3DII* to rendering, word processing, using PPaint, music and other stuff.
2. Would a Blizzard '030 be better and if I was to get either of these boards would I be better getting SIMMS later rather than with it? How would either of these boards compare to a RAM board with an FPU and memory, again added later?
3. My hard drive is quite big physically being a 3.5 inch. Would this make fitting one of the Gasteiner or Eyetech CD-ROMs very difficult or even impossible? If I did have an accelerator, a CD-ROM and my hard drive fitted would they all work in harmony?
4. Would I require a Goliath PSU and if I did fit all this equipment and tried to run it with just a standard PSU, how much damage would I do?

I am not looking forward to opening my Amiga once again. I had to open it three times when I installed my hard drive because when I screwed it back together and I turned it on, it just sat there continually resetting. I think it was due to the the keyboard cable stretching over the hard drive and coming loose from its plug.

Could you give me a step by step guide to fitting all of my new peripherals.

Sean Sherry
Lusk, Co. Durham

1. If you are using your Amiga with no form of memory upgrade, then any memory you add will make a big difference: it will make your A1200 run twice as fast.
2. Add a 68030 processor and memory and your machine will run twice as fast again. However fitting any form of accelerator or memory card without a SIMM is a waste of time and there will be very little improvement. The cheaper accelerator doesn't run as fast as the more expensive one – it's to do with the clock speed of the 68030, the faster the better. That said, even the cheaper 68030 cards are terrific compared to the unexpanded machine.
3. The CD-ROM is not installed inside the A1200 case, and so there should be no problems. There should be enough cabling to supplied to make it possible to have your hard drive and CD-ROM drive working together perfectly.
4. As your Amiga would be powering quite a few peripherals, I would definitely recommend a new PSU. If your PSU runs out of puff, it's not very likely that anything will break: however, your A1200 could crash and cause corruption of the hard drive, necessitating a reformat.

Unfortunately, a step-by-step guide to fitting the CD-ROM drive and hard drive is beyond the scope of the Workbench section. Maybe the editor will commission a special feature on expanding your A1200 for a future issue.

A2000 LIVES ON!

I have recently purchased an Amiga 2000 and would like to know how to upgrade the RAM and which chips I would need. I also would like to know if there is any way of making a multimedia keyboard work on my Amiga.

Lee Thacker
Uttoxeter

You need a dedicated Zorro card to expand the A2000's memory. This is commonly combined with a SCSI hard drive interface or accelerator card. Depending on the card, 1Mb or larger SIMMs are often used, although some older cards used DIL chips. Keep checking the "For Sale" columns in your local newspaper.

A multimedia keyboard? What's that? Stick to the standard A2000 keyboard.

CDDA NO GO

I understand that it is possible to sample audio data from music CDs directly over the SCSI bus, but I seem to have problems doing it.

I have tried using a variety of programs including *OptyCDplayer* from *AFCD11* and the freely distributable *AudioLab Junior*. Using these I can play the CDs and listen to the music, via the headphone socket on the front of my CD-ROM drive, but I am unable to sample the music data:

With *AudioLab Junior* if I set the SCSI unit number to '0' and the device name to 'gvpscsi.device' I am able to read the Table of Contents of a music CD and play it. However when I try to sample the CD, the program generates a 'SCSI Error' message. According to the manual for my CD-ROM drive (a Toshiba XM5301B), it has a CD audio over the SCSI bus facility.

Do I need a better SCSI board or a better CD drive? Should I upgrade the Guru ROM on the GVP A4008 SCSI board (Guru ROM 4.13) board to the latest version?

Mr C Goode
Newton-le-Willows

I've achieved the music sampling feat using a Toshiba XM-3601B, although I did use the SCSI interface of a Warp Engine card. It could be your SCSI interface, although I'm not prepared to yes or no. Perhaps one of our loyal readers can suggest a solution.

IF YOU HAVE A QUERY...

At *Amiga Format* we aim to answer as many questions as possible. Unlike some magazines, we don't just concentrate on our areas of expertise – we take on all your problems (as long as an Amiga is involved). Here are a few tips on sending in questions:



Graeme Sandiford

- Be concise.
- Detail the problem as best as you can.
- Describe the events that caused the problem.
- Give full details of your equipment.
- Make sure your question is relevant and wouldn't be more easily solved by contacting the dealer from whom you bought the goods.

Bear these points in mind and fill in, photocopy, or copy the form below as best you can. Unfortunately we cannot reply personally.

Send your letters to Workbench, *Amiga Format*, 30 Monmouth Street, Bath, Avon BA1 2BW.

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○ A500 ○ A500 Plus ○ A600
○ A1000 ○ A1200 ○ A1500
○ A2000 ○ A3000 ○ A4000

Kickstart version

○ 1.2 ○ 1.3 ○ 2.x ○ 3.x

Hard Disk: .... Mb

Manufacturer: ....

Extra RAM fitted – type, size, (Mb) and manufacturer:

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Details of other hardware:

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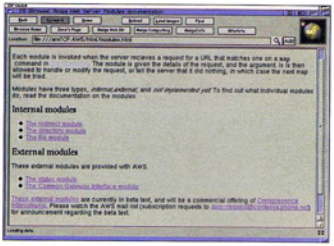


Amiga.net

Dave Cusick takes a look at some of the steps involved in setting up your Amiga as a permanent Web server.

Everyone who has ever attempted to create a Web site will probably have considered setting up their own Web server. The sheer hassle of uploading HTML files to a remote machine, waiting a day for them to be made available to the world, having to put up with strict restrictions on server space and accesses, and so on make using your own machine as a server seem a very attractive option. However, for practical reasons, not every Amiga owner is in a position to do this.

Obviously, unless you have the luxury of a 24-hour Internet connection people will only be able to view your site sporadically. Only a few people (usually students) are lucky enough to have a permanent connection free of charge. For everyone else, establishing a permanent connection is very expensive, so making use of any server space available, either free or at a small charge, from your ISP or from a third party, would be a much wiser move.



The HTML documentation for the *Amiga Web Server* might be a little sparse, but it's well worth consulting.

But what happens when you need to reboot the machine which is acting as the Web server? Whenever this Amiga is not running all the necessary software, the public will not be able to access your site. It is for this reason that the vast majority of Web servers around the world, be they Amigas, PCs, Sun workstations or Unix boxes, tend to be dedicated machines.

There are also various security issues. Since the vast majority of Web users these days will probably not be running Amiga systems, the potential dangers facing an Amiga server administrator are not as great as those facing someone running a server on, for example, a PC compatible. However the potential abuse of things like Server-Side Includes and the fact that surfers on your machine are effectively nosing around certain parts of your hard drive mean that the possible ramifications of a security breach ought to be considered.

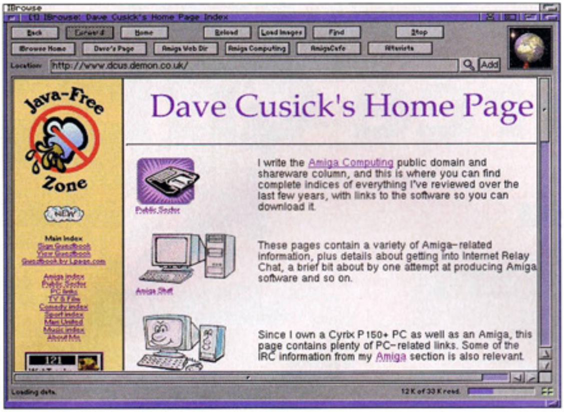
If all this has not deterred you, then the first stage is to download the appropriate software from the Internet. There are really three server packages to choose from. Firstly, there is an old port of the NCSA Web Server. Unfortunately there is currently no documentation available on the Web regarding its installation and use, making it a rather unattractive option.



***Apache* is the most popular Web server on the Internet – and a version is now available for the Amiga.**

APACHE

A port of the *Apache* server system has also recently appeared. *Apache* is, according to server survey specialists Netcraft (http://www.netcraft.co.uk/), the most popular choice of Webmasters the world over. However, the Amiga version is basically a port of the original Unix software, so the software consumes considerable system resources and is not worth considering unless you possess a fast processor and several megabytes of free memory. To find out more about using *Apache*, you can check out the documentation which can be found at http://www.apache.org/docs/ or on Aminet as comm/www/ApacheHTML.lha. The program itself is in an archive called apache_1.0.5.lha in the same directory. One very good Web site running in *Apache* on an Amiga can be found at:





Most homepages on the Internet are stored on servers owned and operated by ISPs...

http://darkcell.demon.co.uk/, but it's not always available because its owner has a dial-up connection.

Probably the simplest option is to get hold of what I believe is the only native Amiga program of its kind – the imaginatively titled *Amiga Web Server* (AWS). Although according to the latest survey by Netcraft there are currently only 29 Web servers on the Internet using *AWS*, this is certainly not a reflection on the software, which sports plenty of powerful features (such as support for CGI scripts) and consumes very little memory, disk space and system time. The package was developed by Omnipresence, the company responsible for *AMosaic* and *IBrowse*, whose Web site apparently runs on an Amiga using an advanced version of it.

...but using a package such as *AWS or Apache*, your homepage could be served from your very own Amiga...

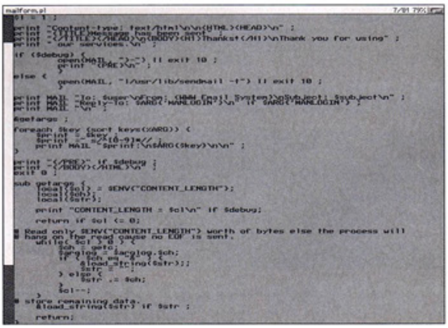
AWS

To use *AWS* you will have to have *AmiTCP 4.0* or greater installed and running on your system. Ideally you should also have AmigaDOS 3, although you could probably get away with using version 2.1. *AWS* is free and can be downloaded from ftp://ftp.phone.net/pub/amiga/aws/ where documentation can also be found. The files you will need are:

- aws-amitcp-xx-10.lha (the main program. The xx is either 00 or 20 depending on your processor);
- common-097.lha (essential stuff)
- html-097.html (the documentation. This is also available on the Web at http://www.phone.net/aws/)

If you want to use CGI scripts you will also require cgibin-xx.lha (where xx again corresponds to your processor) and modules-097.lha. Documentation for these scripts is available at the *AWS* Web site. CGI stands for Common Gateway Interface, and it is CGI programs which perform tasks such as incrementing counters on Web pages and controlling site guestbooks. If you are going to be using CGI scripts, and specifically the Finger script included in the distribution archive, make sure that you have read the security warning in this documentation. Theoretically this particular script is still not safe from a bug which allows visitors to your server to execute commands through your Amiga shell – a situation which is not really satisfactory.

CGI scripts might not look terribly exciting, but they could be the difference between your Web site being a dull affair or a memorable interactive experience.



ENDLESS POSSIBILITIES

Once your server is operational new possibilities will open up. Commonly available CGI scripts will allow you to add features such as server-side imagemaps, and visitor response forms which are automatically emailed somewhere at the click of a button. In theory it should also be possible to add, for instance, a fancy search engine to your site. You will also be able to keep quite detailed statistical logs of the visitors to your site, something very few commercial server services will offer you. Although there is little Amiga-specific information contained within, for general pointers about operating your own Web server it might be as well to visit the World Wide Web FAQ at http://www.boutell.com/faq/.

If you encounter problems using server software, no matter which package you opt for, then the best place to look for the answers is in the comp.sys.amiga.networking newsgroup. The folks who regularly post and respond to messages in this group tend to be experts, and I have even come across the odd example of a regular giving a software developer tricks and tips for using his own software.

CONTACT POINT

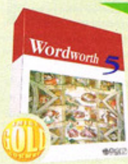
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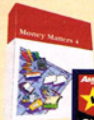


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CREATIVE



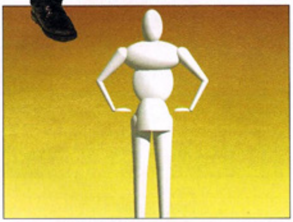
There is a bit of a graphics feast in the creative section this month. First up is a tremendous tutorial on *Personal Paint*, written by some clever chap. Then we have inverse kinematics in the last of our *Real 3D2* series, not forgetting Mr Kennedy's efforts in *Cinema4D*.

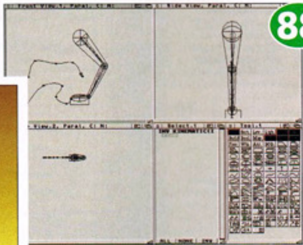
If you can think of any aspects of any of these programs you think we are missing out on, please write in and let me know. These pages take a long time to create, and we want to make sure that you find them genuinely useful.

86 PERSONAL PAINT

We'll be having a look at virtually everything to do with drawing tools this month – and learning how to create a great icon!

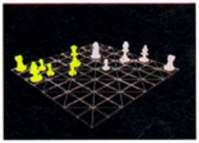






88 REAL 3D 2

In the last of our present series on this popular raytracer, **Graeme Sandiford** unlocks the secrets of inverse kinematics.



90 CINEMA4D 2

The unstoppable **John Kennedy** shows us some great modelling and texture tricks this month, but I bet he can't explain where White's king has got to...



SEND IT IN!

We need YOUR input.

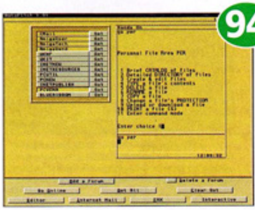
Is there something that you would like to see covered in one of the current tutorial series? Why not send your suggestion to us at the magazine. Here are some things you might like to think about:

ARexx
Commodore's excellent decision to include ARexx with Workbench was only matched by their stupidity in not documenting it properly. If you are having trouble why not write to us with a description of what you are trying to do?

Paint Packages
Unsure of how to get a particular effect? Do you think there must be an easier way? Our experts could help.

Cinema4D
Surely some of you have some questions about our latest 3D giveaway?

Contact us at:
AF Creative • 30 Monmouth Street
Bath • BA1 2BW
Or email: amformat@futurenet.co.uk
putting "Creative" in the subject line.



94 ADVANCED AREXX

Paranoid? Maybe you should be. **Paul Overaa** is the man to show us how to make code that keeps your private bits private and your secrets safe.

PPaint

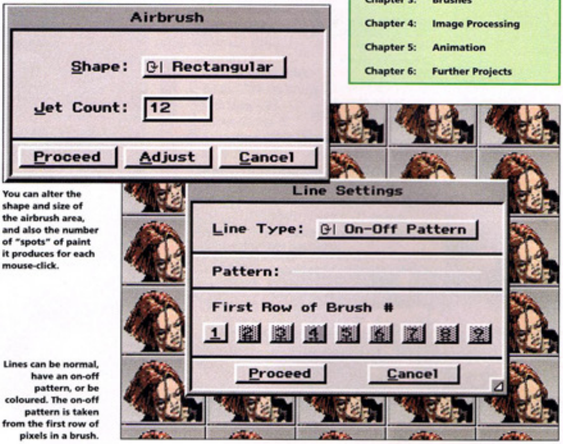
CONTENTS

The irrepressible Nick Veitch once more takes to the keyboard to guide you through this paint program.

You have probably had the chance to play around with *Personal Paint* a bit by now. Since we discussed the basic drawing tools in the last issue, I'm not going to go over what each tool does again, but rather show you some of the deeper aspects of these tools.

For a start, did you know that each of the drawing tools (except for the normal drawing one) has an alternate function if you click on it using the left mouse button. For the majority of the drawing tools, these functions bring up a window which allows you to select different parameters – either the characteristics of a line , the fill pattern (see opposite page) and so on.

Another thing you may not have discovered if you are simply playing around with this software is that you can change the size of the default brushes. If you click on one of the square or circular brushes at the top of the tool panel, with the RIGHT mouse button, when you move back to the screen area you will notice that the pointer has changed. Now click and hold on the left button to drag out the shape of the new brush. Clever eh?



You can alter the shape and size of the airbrush area, and also the number of "spots" of paint it produces for each mouse-click.

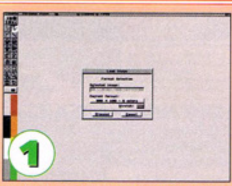
Lines can be normal, have an on-off pattern, or be coloured. The on-off pattern is taken from the first row of pixels in a brush.

ALL THE SIZES

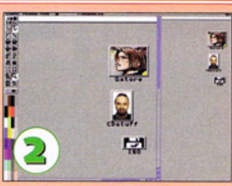
You will no doubt have discovered the text tool already – yes, it's the one with a letter A on it. If you right-click on this button, you will see the font requestor, which will enable you to change the font to any Amiga compatible font installed in your fonts drawer, or indeed in any other drawer on your system. From here you can also change the point size and type style of the font. The styles are generated by *PPaint*, and so are intermediate sizes – only Compugraphic fonts will be rendered to sizes not shown in the lister on the right of the requestor. Note that although this means you can use fonts that are not in the main fonts drawer, any Compugraphic fonts that you wish to use must be installed in the normal manner.

Having typed in your word, you can move it around the screen by simply clicking and holding the right mouse button and then dragging it to the required position.

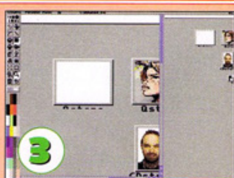
CREATING AN ICON



It is important to have the right palette and aspect ratio for your WB screen. The best way to do this is to choose "Grab Screen" from the project menu and grab the Workbench screen into *PPaint*!

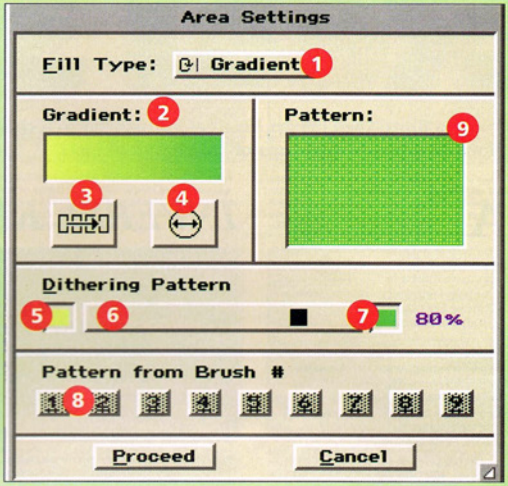


Icons are pretty small things really, so I suggest that you use the magnifying glass to zoom in to an area of the screen – preferably one with an existing icon and a bit of bare space in it.



Using the Brush cutter, make a copy of an existing icon, then blank it out or fill it with a solid colour. This will give a template to create a completely new icon, or an alternative image for an existing one.

SHIFT-F IS FOR FILL



1 This cycle gadget can be used to select the type of fill to be used – solid, gradient or patterned. Selecting any of the appropriate buttons on the interface (e.g. the gradient direction button), will also set the fill type to the appropriate mode.

2 A gradient fill uses the available colour palette to create a fill gradually progressing from one colour to another, either through a range of other colours, or just between the two colours selected (the default colours are the current foreground and background colours). You can still change these by pressing in the on-screen palette bar with the left and right mouse buttons, even while this window is open.

3 This button selects whether the gradient fill will progress through a range of colours, or simply fill between the two selected colours. The range used will be between all colours appearing between the current foreground and background colours.

4 This button selects the direction of the gradient (horizontal or vertical) and the limits of the gradient. This means you can either fill with the entire range of the gradient within the fill area, or fill using a gradient calculated on the height (or width) of the screen.

5 This gadget shows the currently selected background colour. To change this, simply select another colour from the palette panel on the main screen.

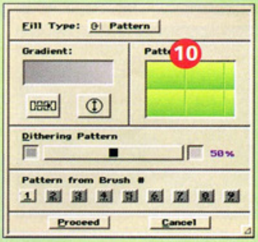
6 This bar is used to set a sliding percentage value of dither. Used for dithered pattern fills, the pattern window will change to show the current dither pattern setting when you move this slider. The patterns generated use only the two selected colours.

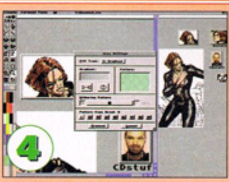
7 This indicator shows the currently selected foreground colour. Again, this can be changed by selecting a different colour from the main toolbar's palette.

8 If you want to use a patterned fill, you can select a brush to use from these buttons. The pattern will be tiled to fit the fill area in both x and y directions.

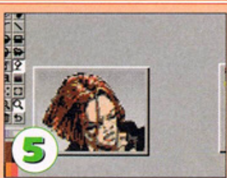
9 The fill pattern window simply shows you an example of how the current settings would appear if you performed a fill with them. This enables you to see what effect your changes will make without having to leave this control window.

10 In this picture, the pattern preview is showing a tiled pattern from a brush. Note that having selected the brush, the cycle gadget at the top has automatically changed to show a patterned fill.

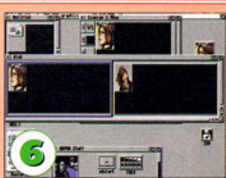




Now you can either draw an image, or cheat by cutting a brush from another picture. I am going to fill the background in with a dithered colour gradient (see the Fill box on this page).



Now the image has been filled in, it fits in better with the normal decor of my workbench screen. Select this image as a brush, then save the brush somewhere sensible (like RAM:) for later use.



Now you have created your icon, you can load it into an icon editing package like Iconian, to add the image to an existing icon. Here I am using two pictures of Judge DeMarco for my backup partition.

Real 3D 2

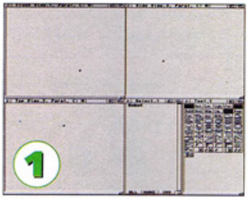
Graeme Sandiford brings his *Real 3D* tutorial to a close with a look at animating groups of connected objects.

All good things must come to an end, and so it is with our *Real 3D* tutorial, which has been going for nearly a year. Despite the power and sophistication of the program, we've finally got to the point where anything we could teach you could be learnt by yourselves with a bit of experimentation and the on-line help system.

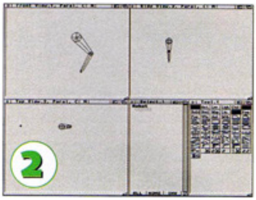
This tutorial will focus on yet another powerful animation feature – inverse kinematics. This technique enables you to animate groups of connected objects in a natural and time-saving way. The classical example of how this works is a finger reaching out to touch a button. The finger doesn't float off by itself, rather it drags the hand, the wrist, forearm, elbow and so on.

We'll be creating a very simple animated humanoid figure, but the same techniques can be applied to animate complex machinery or complicated human and animal figures.

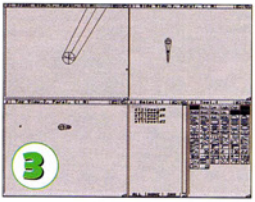
INVERSE KINEMATICS



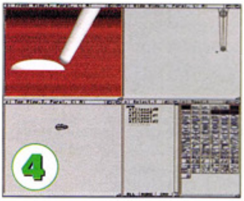
We'll start with our usual tri-view environment and begin by creating an arm. To do this we'll be using a new tool Create/Compound Tools/Conical. Like all of the other compound tools this works by fitting objects together.



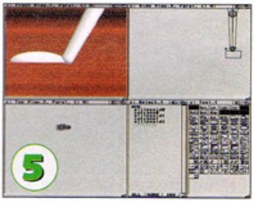
Select this tool and go to the front view. This tool works by defining spheres at keypoints which are later joined together by cones. Draw our arm by defining a large sphere for the shoulder and smaller ones for the elbow and wrist.



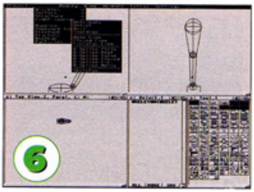
Rename the new level as arm and enter it. You will see all the objects that were used to create the arm. Now we're going to add a simple hand object. Placement is important for the joints to work correctly so zoom in on the wrist.



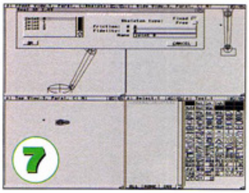
Select the ellipsoid tool and draw an egg-shaped object. Switch views and resize the object as needed and then add a cube. Use the Boolean operation AND NOT to cut-away the bottom half of the hand and then rename it.



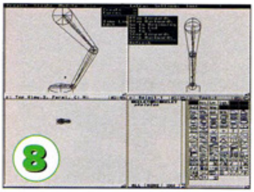
Select move and carefully select the bottom right edge of the hand. Move it, using the drag-select method, to the centre of the wrist sphere. It may appear a little strange if animated up close, but helps to place the skeleton accurately.



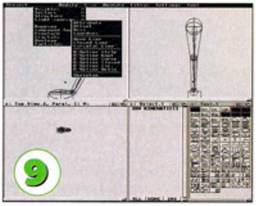
Go to the menu Create/Structure/Method and select Skeleton from the list in the requestor. Enter the skeleton level and zoom back out in the front view so you can see the arm. Go to the menu Create/Controls/Skeleton.



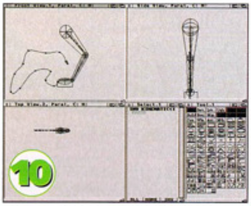
Again using the drag-select method to ensure accuracy, select the centre of each sphere/joint in turn, starting from the shoulder and ending at the tip of the hand. Default values in the requestor will do for our needs.



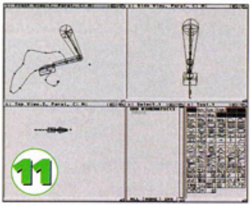
Next go to the menu Animate/Control/Refresh – this will lock the current positions of the objects and skeleton so that the objects move with the skeleton. Before you do this check the position of the skeleton in all the views.



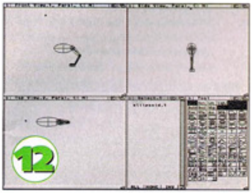
Now for the inverse kinematic controls. Go to the menu Create/Structure/Method and select Inverse Kinematics from the list to create a new level under the skeleton level. Enter this level and go to the menu Create/Controls/B-Spline Curve.



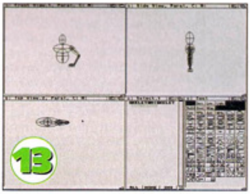
Draw a curve from the end of the hand object as this will be pulling all the other objects along. Draw any shape you like as this is just to demonstrate how *Real 3D's* Inverse Kinematics system works. Right click when you've finished.



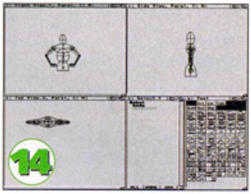
Now for the test. Open the animation window and click on the play-forwards button. The end of the hand should move to follow the line you've drawn and the other objects while connected, should move to accommodate the hand's positions.



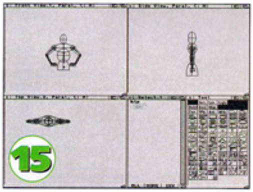
Press <right-amiga><u> to undo the changes made by the animation and, for convenience's sake, delete the IK level. Return to the root level of the project and create a new level called body. Create a squashed sphere for the chest.



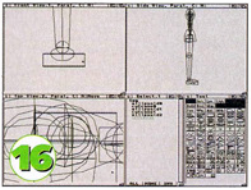
Below the chest object create another ellipse, flatter and narrower, to serve as our figure's stomach. Next create an ellipse for a head. Create a skeleton level and draw a skeleton from the bottom of the stomach to the top of the shoulders.



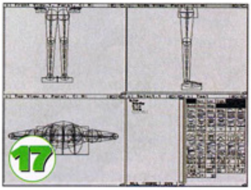
Return to the root level, select the arm level, cut and paste it under the body level twice and mirror one for the other side of the body. Go back up to the root level and create a cut ellipse in the top-view to serve as a hip.



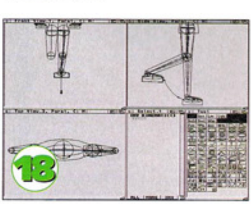
Size and stretch it as needed and create a level called hip. Rename our hip object and cut and paste it and the body level into the hip level. The hip level serves as the parent for all of the objects so moving it will move everything else.



Now for the legs. Use the Create/Compound Tools/Conical tool as we did for the arms. Define the first sphere within the hip, a smaller one further down and the smallest for an ankle. Use the same technique for the foot as we did the hand.



Create a skeleton level and insert a skeleton object starting from the top of the leg and ending at the tip of the foot. Adding the skeleton will need to be done in the side view. Cut and paste the leg and mirror it.



Our construction work is now complete unless you want to add some textures. To animate use the hip object to move or rotate the whole body and create inverse kinematic levels and controls for bending limbs or the body.



So there you go. Your finished figure should look something like this. He's a little bit out of proportion but he should move in the right way.

Cinema4D 2

The eternal battle of Realism versus Rendering times explored, with the pixel-sharp *Cinema4D 2*.

CONTENTS

Whenever possible, *Cinema4D* renders images with 24-bit accuracy. This means that there could potentially be over 16 million colours present in the rendered scene. Unfortunately, unless your Amiga is fitted with a graphics card, it's not possible to display these wonderful 24-bit images directly, though as we can see it's possible to get pretty close if you have an AGA Amiga (A1200 or A4000).

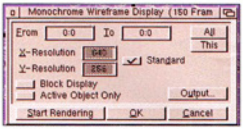
By working in 24 bits, *Cinema4D* maintains the utmost quality of its images, and just because you can't see all 16 million colours doesn't mean that it's a waste of time.

If you want to process your images further, in a paint program such as *Photogenics* for example, or print them out on a colour printer, having the images in this format is very desirable indeed: any other form means that at some point, information has been discarded.

Cinema4D has six rendering modes, each one producing more detail than the last. You select the one you want by clicking on the Render button in the main tool palette. The render modes and their abilities are shown in detail in the boxout.

WIREFRAME AND SHADED RENDERING OPTIONS

If you hold down the Shift key as you select the rendering mode, an extra options window will appear. The window for the four wireframe and



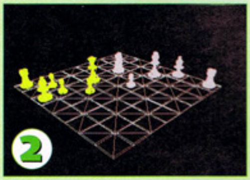
Hold down Shift for an extra set of options.

THE RENDERING MODES



Monochrome Wireframe

This mode is perfect for testing animations. Objects are rendered only in black-and-white outline form, making this is the fastest rendering mode available.



Wireframe

Similar to the monochrome mode, except different colours are used for the outlines, depending on the colour of the object. This can help when previewing a complicated scene.



Monochrome Shaded

One step up from the wireframe, and now objects are "filled in" and look more solid. Still fast, and a good way to preview any animations. Yes, we'll cover animation soon enough!



Colour Shaded

With this mode, you start to get a feel for the finished image. However, there will be no transparency, reflections or shadows.



Scanline

The first rendering mode capable of generating 24-bit graphics, and in many cases good enough for finished images. Colours and textures are rendered properly and round objects appear smoothed.



Raytrace

This is the most accurate (and slowest) rendering mode. It uses a physical model of how light travels to create shadows, as well as complicated reflection and refraction effects.

shaded render modes looks similar to that on the previous page, with one or two variations.

FROM/TO
If you only want to render a portion of an animation, enter the start and stop frames into these boxes. By default, with no animation, they will display "0" and so only the currently displayed scene will be rendered.

THIS
Render only the current scene.

ALL
Render the entire animation. These buttons will insert new values into the From/To boxes.

STANDARD
Tick this box if you want the rendered image to fill the selected screen mode.

X-RESOLUTION/Y-RESOLUTION
If the Standard box is not checked, you can define the size of the screen to render. You might want to enter a small display say only 160 by 128, to save time.

BLOCK DISPLAY (when present)
Renders only a boxed outline of all objects. Fast but not very detailed.

PATTERN (when present)
Use special dithering patterns for more colours. Causes flickering in animations, so use in still images only.

ACTIVE OBJECT ONLY
Renders only a selected object: everything else is ignored.

OUTPUT
Opens the special image output window (see later).

START RENDERING
Go for it!

RAYTRACE RENDERING OPTIONS

Raytracing has its own options, as well as sharing some with the Scanline mode.

SHADOWS – Switch on if you want lights to cast shadows. This slows down rendering times, and is probably not worth doing in animations.

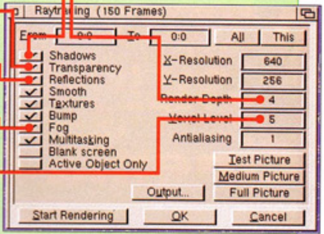
TRANSPARENCY – If objects are transparent, they will only let light pass if this is switched on.

REFLECTIONS – Render reflections – including those between objects – in the scene.

FOG – Objects can be made "foggy" – this must be set to render them properly.

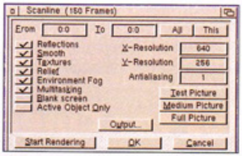
VOXEL LEVEL – Worth experimenting with, especially if you have a lot of memory – higher values could speed up rendering.

RENDER DEPTH – Controls the number of reflections per light beam. More means more detail (for example, two shiny objects beside one another) but, unsurprisingly, longer rendering times.



SCANLINE RENDERING OPTIONS

When rendering in Scanline mode, there are many more options which you can adjust.



Choose from a whole new range of rendering options in the Scanline mode.

REFLECTIONS
When on, the Ground and Sky are reflected in shiny objects. This is quite fast, so you'd be wise to leave it on.

SMOOTHING
If you don't want spheres and other curved objects to appear as squared-off shapes, switch this option on.

TEXTURES
Textures add to the rendering time, but also to the realism of a scene. Switch them off when testing, and then back on again for the final image.

RELIEF
Determines if relief textures (bump maps) are taken into account.

ENVIRONMENT FOG
If a fog is defined, this will switch it on and off. Fog is defined in the Objects/Environment menu.

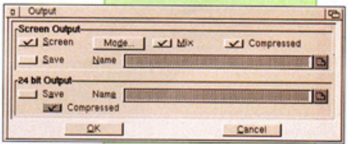
MULTITASKING
For top speed, switch this off – but remember you can only break into the program by pressing ESC at the end of each scanline.

ANTI-ALIASING
This setting causes *Cinema4D* to render at a higher resolution, and then "round down" to give a much less jaggy effect. It does take longer: a setting of just two will triple rendering times.

FULL/ MEDIUM/ TEST PICTURE
Use these buttons to quickly select an image size to render.

OUTPUT OPTIONS

When rendering, you have a lot of decisions to make. When you click on the "Output" button, you get some more. First of all, you can decide if you want the image to appear on screen. This might seem pretty daft – of course you want to see what you are rendering – but remember that it's possible to render directly to disk in 24-bits using the Scanline and Raytrace modes. If you want to save time, switch the "Screen" button off.



If you want to render directly to disk then it is possible – just click off the Screen button and save some time.

"Mode" will select the graphics mode that you want to render in. You can render directly to *Cinema4D*'s own screen, but for best results pick a screen such as Hi-Res Pal in HAM8. If you select "Save" you can automatically save the screen display when the image is complete (note this will not be in 24-bits).

If you want to save a Scanline or Raytrace image in maximum detail, then click on "Save" in the 24-bit section. As with the ordinary save, clicking on "compress" will squeeze the image a little bit and this is recommended.

ESSENTIAL INFORMATION

- **Use Raytrace only when you have to: i.e. only when you need shadows and accurate reflection and refraction effects.**
- **Scanline mode is a lot faster than Raytrace, and perfectly good enough for animations and many still images.**
- **The features which are most time-intensive are shadows, reflection and transparency. If you do without these, your scene will render a lot quicker.**
- **Textures and complicated objects take up a lot of memory. If you need them all, lower the Voxel count to three or four to see if that makes a difference.**
- **Using Anti-aliasing when rendering your final, high resolution 24-bit image, but remember that it takes a lot of time. You can sometimes obtain a similar result if you take your rendering image and either shrink it or blur it slightly in an image processing program such as *AdPro, ImageFX* or *Photogenics*.**
- **If you are creating an animation, experiment using screenmodes with different numbers of colours. Sometimes HAM is the best, and can be animated better than a 256-colour mode.**
- **If you don't have a graphics card, render your image in HAM8 mode for results which are very close.**
- **Try taking an image rendered in 24-bits and converting it into HAM8 in an image processing program.**



Cinema 4D Offer



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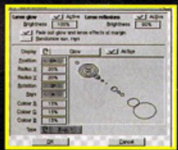
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Advanced ARexx Coding

Counter-Espionage For Beginners!

Well, not exactly counter-espionage, but in this two-part tutorial Paul Overaa *is* taking a look at some simple ways in which ARexx can help make both programs and your data files secure from prying eyes...



Check it out – you'll find this month's script wins no prizes for speed!

Cryptology, the study of systems for secret communications, is not a new subject. People have been writing messages and translating them into secret codes for thousands of years and during that time there have been equally enthusiastic groups working out how to decipher them.

Cryptology can in fact be split into two areas: Cryptography, which is the design of secure communications systems, and cryptanalysis – the darker side which studies the ways in which 'secure' systems can be compromised.

So, what's all this got to do with your Amiga and, more to the point, why would you want to encrypt particular files anyway? Well, you may need to keep confidential files on a hard disk system used by several other people. By encrypting sensitive files you ensure that no one else is able to view or use them. You might also find it useful to restrict the use of certain utility programs to authorised users and, although it is usually easiest to keep such programs physically locked away on floppies, it is equally possible to use encryption/decipher tricks on runable programs as well. Similarly if you're on the net and going on holiday you might, as an extra backup precaution, decide to copy all your important work files up to a personal file area at the ISP (internet service provider) site. Encrypt them first and you'll eliminate that nagging doubt as to whether anyone at the ISP site is looking at your data.

Then there's the commercial side of things – encryption techniques are commonly used by games programmers to prevent their graphics and sound files from being copied and reused. Encryption can even provide an additional tool against the virus writers since an encrypted program will not be a recognisable normal executable file!



Now I wonder what this means?

MAKING A START

It's actually possible to add encrypted file read/write routines to many programs with just a few extra lines of code. Let's begin by looking at some of the basic ways of encrypting a text file.

One easy method is to read the file byte by byte and exclusive-or each character with some fixed 8-bit number (the encryption 'key' value), writing these modified values back to disk as a new file. This is quite an old trick and was originally popular with programmers because it is easy, and because the original contents of the file can be reinstated by using exactly the same routine – i.e. the second exclusive-or operation undoes the effect of the first. The disadvantages nowadays are that this encryption method is both well known (especially amongst programmers) and, with a single 8-bit key, easily broken. All you have to do when attempting to decipher such a file is to use a loop routine to perform a byte-by-byte exclusive-or translation using all of the numbers from 1 to 255 looking for a translation that makes visible sense!

Another simple method, called the 'Caesar cipher', uses a cycling alphabet-twist whereby the n'th letter of the alphabet is replaced by the (n+k)'th letter (using a modulo 26 wrap-around conversion when necessary). If, for example, we use k=1 every letter in the file will get replaced by the letter which follows it alphabetically so the phrase... THIS IS A SECRET would become... UIJT JT B TFDSFS. The Caesar cipher is again easy to crack – it only takes 26 guesses to find the value of k used and, worse than that, spaces in the encrypted message enable short words ('a', 'of','is'

etc.) to be easily guessed. It is however possible to improve matters by using a randomly selected table to define the text substitution, like this...

original alphabet
ABCDEFGHIJKLMNOPQRSTUVWXYZ
replacement alphabet
VELABMINGOJRSKPQCTDUXZYWHF

Modern day military cryptologists frown on all these techniques and for good reason – computer-based decipher programs can use all sorts of tricks to find a way into these simple substitution cipher codes. Particular letters within are used more than others, certain character pairs (QU and ER for instance) frequently occur together whilst at the other extreme there are some combinations (QZ) which never happen. Needless to say all these clues make the job of code breaking easier.

SOME GOOD NEWS

But most people who want to protect their data from prying eyes are unlikely to need high-powered techniques. In fact, speed, simplicity, plus protection against any reasonably informed potential 'bad guy', will be all that you really want. Simplicity of course implies the total automation of the encryption and deciphering processes and the following ideas are going to set the scene for an algorithm that turns out to be a perfectly effective replacement cipher for many purposes.

I'll continue to discuss the ideas in terms of text and text files but, as you'll see, the resulting methods are applicable to any type of data. For the moment, however, let's assume that we're dealing with a text file of size n and wish to replace each character in the file by some encrypted equivalent. Here's a pseudo-code plan of action...

```
Initialise file position indicator n
DO WHILE NOT END OF FILE
    Read the n'th character
    Change the n'th character to
    something else
    Increment file position indicator n
END
```

LISTING 1

```
position=0
key_length=Length(key)
c=Readch(s)
do until EOF(s)
   key_character=SubStr(key,((position//key_length)+1),1)
   c=BitXOR(c,key_character)
   Writech(d,c)
   position=position+1
   c=Readch(s)
end /* while EOF() loop */
```

● **Listing 1: The loop that performs both file encryption and deciphering operations**



Now this doesn't look like the sort of encryption key you'd forget in a hurry and next month you'll find out how even graphics files can be used to encrypt your data!

In its simplest, fixed translation, form this loop produces the direct replacement scheme mentioned earlier. To prevent each character from always being encrypted in the same way a better approach is to collect an encryption key from the user (and the longer this is the better) and use it to control the character replacement operations. Here's one possibility... Initialise file position indicator n

```
DO WHILE NOT END OF FILE
    Read the n'th character, which we'll
    call TEXT(n)
    TEXT(n) = TEXT(n) Exclusive-
    OR'ed with KEY(n)
    Increment file position indicator n
END
```

Put those ideas together and we can associate each character in the file with one of the encryption key characters using this substring statement...

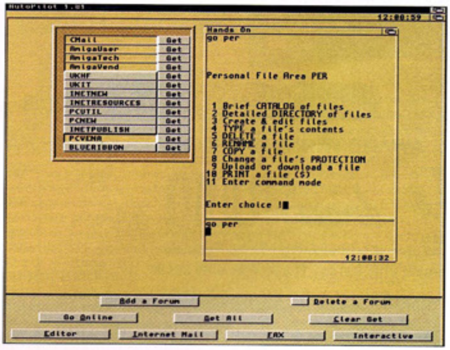
```
key_character=SubStr(key,((position
//key_length)+1),1)
```

All we need now is an expression that will encrypt the current file character by exclusive-ORing it with the specified encryption key character. It's easy with ARexx because there's a BitXOR() function available. Use it like this...

```
c=BitXOR(c,key_character)
```

A STOPPING OFF STAGE...

To turn these ideas into a real program we need a loop that reads characters from a specified file, performs the above mentioned conversion, and writes the modified data to a new file. **Listing 1** shows the encryption loop from the example you'll find on the Coverdisk and, because the exclusive-or approach has been used, re-running the script on an encrypted file will generate the equivalent deciphered version (providing, of course, that the correct encryption key is used). What may surprise you, is that the bulk of the ARexx code is connected with opening/closing the files and reading/writing characters. The encryption process itself requires only a couple of lines of code and this means that it is very easy to add similar encrypt/decipher facilities to any existing file-oriented ARexx script.



Compuserve, like many ISPs, provide users with private areas for storing personal files!

Trouble here of course is that, if the text file is larger than the key, then character KEY(n) would not always exist so the following minor modification is necessary. First we obtain the key length using ARexx's Length() function...

```
key_length=Length(key)
```

then the ARexx modulus operator // is used in the expression n//key_length to ensure that a encryption key character position between 0 and key_length-1 is always obtained. Adding one to this value then gives a character position that ARexx can use (remember character positions with ARexx string functions always start at 1).

So, is that it? Not a chance – this month's script works but, if you try using it on anything other than small files, you'll find that it's very slow. But improvements are easy and next month I'll show you a trick that speeds things up and allows you to use pictures and sound samples as encryption keys!

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MailBag

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CD FOR CDTV

Round at my mate's house, I saw a copy of the March issue of *Amiga Format*. It was the CD edition and and he was just booting it up. I was amazed to find how much it contained and after we had spent about three hours searching around, I asked if I could take it home.

I have a CDTV but when I inserted the CD into a caddy and placed it in the drive, nothing happened. All I got was a red screen! I got it to work once and it said "This disc requires Kickstart 2.0". I read the CD case instructions and it said: "You should find no difficulty using this CD-ROM in ANY AMIGA with a suitable CD-ROM drive". I have a 1.3 machine so is there any way I can get it to work, or is there a possibility of you changing the startup sequence to accommodate this? I'm sure there are lots of CDTV users out there who would like to benefit from this excellent CD.

Matthew Keeber
Retford

The trouble is one of compatibility, as I'm sure you are aware. Essentially, you won't be able to run the Workbench commands and software required to boot the disc (designed to work with the CD^{32}*) so the disc won't boot.*

And if we did use older commands (which would mean lots of software wouldn't work) what would you do when you did boot up? We really don't have the time or manpower to create a special front-end for the CDTV, and 99% of the software on the CD wouldn't work on your machine anyway. Sorry.



You'll be able to use a whole bunch of new weapons. From your arsenal and everything.

CD-GAMES

I own a CD^{32} with an SX-1 expansion unit and I want to know why there are now so few CD-ROM games available for the Amiga. I have also yet to see a decent CD-ROM compilation of old Amiga titles. I love playing adventures, and *Indiana Jones* and the *Monkey Island* series currently take up a *lot* of disk-space if installed. Why can't someone (Acid/Guildhall are you listening?) get these titles onto CD?

Brian Roscoe
via email



Monkey Island – a popular game but a lengthy installation process.

It could be done quite easily. Team 17 regularly produced CD versions of their games. Perhaps companies like Guildhall, who are re-releasing old games, could try a CD version too...



SNOOKER LOOPY

In 1995 your magazine gave out a free disk called *Arcade Snooker*, but this was not for an Amiga 600. I'm hoping you may find it in your heart to relieve my pain and make one for an A600 as I've been looking for the game for ages. If you could do this I would be very happy that I could finally play my favourite sport.

M.G. Mount
Morecambe



I'm afraid that your memory doesn't work either! It was an entirely different magazine who gave away the disk you are having problems with! However, I can tell you that the publishers of that game were Team17, and I think it unlikely that you will convince them to make an A600 version. The reason it will not work is that it requires the AGA chipset. To convert it for the A600 would involve redoing all the graphics for one thing. Why not settle for an older classic like Jimmy White's*?*

MORE WORMS

Last year I bought the brilliant game *Worms* for my A1200. After buying the March 96 (*AF95*) issue which contained two custom levels, I decided to experiment myself.

After some months my *Worms* levels started to come together, but unfortunately, I am only 15 years old and cannot afford to advertise. Could you please print my letter? If you are interested I will send you a copy.

Anyone who would like a copy can send me £4 + 50p (p&p) cheque or postal order. The disk is called *The Worming Grounds*.

Jamie Seeney
5 Hedley Cres
Newton Hill
Wakefield
West Yorks
WF1 2JG

Well, I hope they are good!

DIFFERENT THREADS

I have been moved to write this letter for several reasons.

1. Why do your cover CDs always repeat so much stuff? Are you really that short on new material?



2. Whenever you release a CD, the software on it is virtually identical to that contained on other magazines (well, magazine) and I end up buying two magazines when one would suffice.
3. What is the fascination with 3D? We are bombarded each month with 3D software, models, pictures etc etc. Not everyone likes 3D. Why not get some good old fashioned 2D stuff off the 'net? The new Eric Schwartz comic strip "Sabrina Online" for example. (My personal preference is for fantasy art, like Boris Vallejo). What harm is there in catering for all tastes?
4. The "New Amiga" stated in the Bradford column is OK, but it isn't what we need. It still utilises a 50MHz '060 processor for a start. While this is fast, it still can't compete with recent developments in PC technology. We need raw processing POWER – at least 150MHz.
5. Your magazine goes from strength to strength. The articles are both fascinating and useful, and the layout is superb. Excellent cover on the April edition. Love the metallic blue text.
6. It's nice to know that you still support this wonderful machine. As one of only two worthwhile Amiga magazines available compared to the dozens of PC mags your influence is all the more essential.
7. Keep the steady flow of top commercial software on the CDs

flowing. The cover CDs are my main influence when choosing which magazine to buy and your CD comes out tops virtually every time.
8. DEFINITELY keep the double CD specials going – top value!
9. How about themed cover CDs? Perhaps a music special with hundreds of MODs along with various music utilities, or a graphics special (OK, even a 3D special if you must).
10. How about a small section in the magazine devoted to showing where the Amiga has made its mark in the business/entertainment world (did you know that the Virgin store in Portsmouth uses Amigas to run their in-store TV presentations?).
11. How about releasing a few old CD32 games on the cover (licences and copyrights permitting, obviously).

Scott Strachan
via email

Well, that was to the point then. You can always tell emails sent from students, can't you. Anyway, here goes:
1. Our cover CDs do not repeat stuff. I'm sorry, but apart from the Workbench setup which is essential, all the commands, the tools used to view text and pictures, MUI and loads of libraries, we don't repeat stuff. You may find the occasional thing, like Real3D, *appearing more than once, and we do tend to run commercial demos for a couple of months, so that readers won't miss out. This probably accounts for about 2% of the disc. Anything else is a new version.*
2. Well, don't buy the other mag then.
3. There are a lot of 3D programs, models and objects etc. We are just reflecting the software available. Sabrina Online is here!
4. Well, it's all a matter of opinion isn't it, and we'll know soon.
5, 6, 7 Thanks!
8. We intend to!
9. We might do, but it's not that likely.
10. Are people still interested? Surely everyone knows that lots of hotels etc, use Amigas for information systems? Don't they?
11. Tricky, but you never know.

SENSIBLE FOOLS

I see from a recent advert that Sensible Software are yet again trying to fool Amiga owners into buying a new version of *Sensible World of Soccer*. Before I buy it, I have a few suggestions to put to Sensible.

Firstly, they must make the game hard disk installable. Virtually every Amiga owner has a hard drive now and making *SWOS* install will increase its playability substantially. Loading *SWOS* can be a chore as it takes so long. Sensible can no longer use the pirate excuse as we all know there is not a protection system that cannot be quickly cracked.

Wouldn't be great to have several versions of *SWOS* on your hard drive, each in its own sub-directory? You could select whether to load *SWOS 94/95* or *96/97*. You could have another directory containing all your saves, careers etc. and therefore eliminate any "saved with different *SWOS* version" problems.



He shoots! He scores! The goalie dint even see it comin'...

This system would be great for updates. Sensible could sell updated disks for around £10 which could be installed alongside all other versions. Surely releasing one of these every 6-12 months would be better than selling the full game every year? I know I would rather buy an update than the whole game repackaged with a few minor enhancements.

We also need increased squads – at least in the English and Italian leagues. Sixteen players are not enough. It seems silly that some of the world's top players (e.g. Boban) play in their national team yet not for their club. Having more players injured would stop other players losing too much value – which leads me on nicely to my next point. After four or so attempts this bug has not been fixed. In my Chelsea career, John Spencer has scored hundreds of goals (average 80 per season) yet his value has dropped from 950K to 900K! Surely if this really happened he would be worth more than Alan Shearer. Finally, why not make the opposition make substitutions or have their players sent off (or even booked in Europe)?

If Sensible decide to make these adjustments before they release the next version I may consider re-purchasing the game. Otherwise I am quite happy playing *SWOS 95/96* for the next few years (although now I've got to buy Zola for my team).

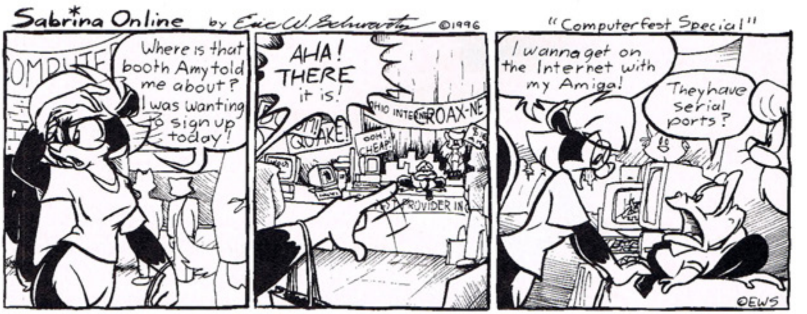
Gideon Cresswell
via email

It would seem only sensible really, wouldn't it? Some SWOS *installers do exist, some of which work on all versions of the game. It would also be nice if Sensible thought to include a team editor, so you could update the teams as and when, instead of having to wait for the next update.*

DIFFICULTIES IN STORE

Just wondered if you were aware of the difficulties in getting hold of *Amiga Format* on a regular basis. I used to buy the magazine from the newsagents' round the corner up until February. When I asked why he'd not got the Feb issue, he said something like, "Cos they've changed order, innit!" What he explained later was that you're no longer 'sale or return', and he's now "lumbered" with any he can't shift. He now stocks the other Amiga magazine instead. It's not that I've any great preference here, if there's something I like the look of on both magazines, then during the course of the month, I'll end up buying them both. But I do like to have a choice.

Further afield, in WH Smiths, I find they only stock the CD version of *Format*. I know what your arguments will probably be, before you give them. And you're right, I should really have a CD-ROM by now. I don't think I should have to subscribe, because occasionally



I don't buy it. It depends if there's anything that catches my eye whilst I browse through. It probably wasn't the magazine's decision to take this path for distribution, or there just wasn't any available alternative. Sales must've been hit, though, and I don't think that's going to help your (or the Amiga's in general) cause.

Wayne Ryder
via email

Unfortunately, in order to maintain the price of the magazine, we have to maintain the "efficiency". This basically means that we have to sell a large number of the magazines that we print. Other magazines print twice as many magazines as they sell, resulting in a higher price. I don't really understand the logic of your local retailer though. If he sold say 10 copies when the magazine was sale or return in his shop, why does he now think he isn't going to sell any?

As ever, you do not have to subscribe, you can reserve copies of the magazine at your local shop. WH Smiths' stores do stock both versions, although in different numbers – presumably the CD version sells much better in your area.

Letter of the Month

SPREE SPEECH

I am writing to back the points stated in the letter 'Spending Spree' in the October issue (*AF89*). I too feel very strongly about the so-called Amiga users, who are still in the dark ages (A500/+ owners).

They are the first to moan about the lack of quality graphics, games (textured, 3D, etc.) and improved application software, but what can they expect! Do you hear of PC owners trying to run *Duke Nukem* on a 286?!?

The old excuse of "My favourite games will not run on an AGA/020 based machine" is old hat. There are now numerous AGA software patches (too many to list), and some publishers of these give contact addresses to send any 'fix' requests to, and they will fix it for you.

Second hand A1200's are very reasonably priced – between £100 – £140 for a basic machine. RAM is available at approx £15 for 72-pin 4Mb and £25 for 8Mb (from PC dealers!), hard drives are also very reasonably priced. With prices of extras at an all time low, what more incentive do people need?

I have one message for A500/+ owners: upgrade or stop moaning. If you really want to stick with your A500, but play new games, like *AB3D II*, etc. then either purchase an A1200 or move to a games console machine (that will be upgraded in about six months!). Then the 'Amigans' praying for games like *FIFA '97, F1, Fade To Black* and other titles (either CD-ROM or hard drive versions), may get their wish.

Mr M Gell
Essex

COME IN NUMBER 100...

My game *Number 100* has recently been featured in the Reader Games section and thanks for showing it. I have a couple more games I'm working on and will send them to be included in some next issues, so look out for them.

I think the Reader Games section should have score boxes similar to those included with normal reviews, giving individual scores for music, graphics and playability etc. with an overall score at the end.



No, we're not kidding, this really is the best looking part of the game. Excited? You better believe it.

If it is possible you could also tell people where the games are available from, so if anyone wanted to get hold of the good ones they could write away to the authors and buy them.

So I've started the ball rolling – if anyone wants to buy my *Number 100* game, they can do so by sending a disk and 50p for postage to:

Chris Seward
10 Scafell Close
Eastham
Merseyside
L62 9EU

Why do you think that giving scores to these categories would help? Anyway, I kindly asked Andy to specially score your game for you, and this is the outcome:
Graphics: 10%
Sound: 10%
Playability: 70%
Overall:
"50p would be better spent on a pen and paper."
10% (because it's one per cent better than Kick Off 3*)*

Anyway, it would help if readers who sent in their games stated whether they were going to be available via PD, or if they intend publishing them in some other way when they are sent in. Thanks for your effort, er, I hope someone gets in touch.

CHEAPER PD

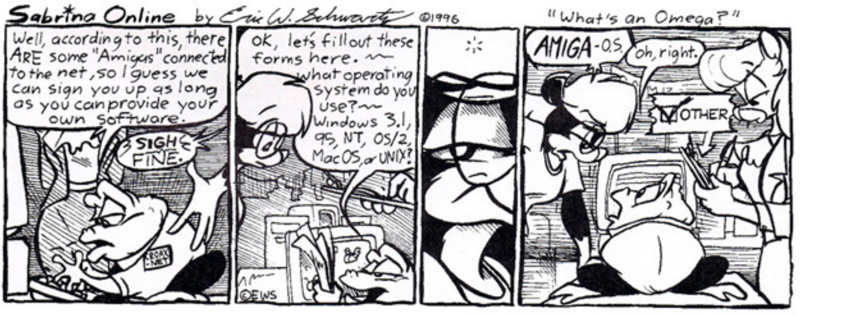
I am starting up a PD library and am writing to ask if you would print my letter. Before you screw it up, let me tell you that all my PD software is FREE – well sort of.

This is how it works: whoever wants to join sends me £3 and they will receive a catalogue disk with lists of all the PD software that I own (2Gb+) and a membership number.

When they've read my lists and seen what they want all they have to do is send me the right amount of disks, and I will put the software on and send them back. After they have got bored with what they've got, they can send the same disks back and get some more PD, free of charge. Every 100th member gets a full commercial game of their choice. If anyone is interested send £3 cheque or postal order to:

Daniel Mayberry
8 Woodlands Grove
Boothtown
Halifax
West Yorks HX3 6HP

Sounds good to me. Good luck!



GAME ON!

My name is Paul O'Grady and I am 15 years old. I buy your magazine quite often, and have just read the March issue. Lately I have been drawing some really good pictures and animation frames on my A500+ using *Deluxe Paint 3*. What I would really like to do is to use my drawing to make some very basic games. So all I want to know is how to make a game. I know games are full of commands but what do they all mean? Can you help?

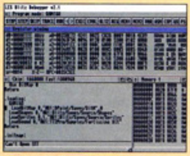
Do you know of any other people I could write to? Any free disks /games/leaflets/posters /mags would be very welcome and appreciated. If you can help and I get a few games published I would be more than glad to put a few words in for *Amiga Format*. Please Please Please reply as soon as possible.

Paul O'Grady
Milton Keynes

I wonder if you can suggest a good programming language to write my own games or programs, please don't forget that I am a beginner. In Malta a few people don't rate the Amiga saying that it is only used for games and that it is a cheap machine. This is not true. The Amiga can do anything from games to programs. These critics are IBM owners. They do not know the benefits that Amiga can offer. It is for this reason that I will never sell my Amiga to buy an IBM and I will continue to use the Amiga and support it for the rest of my life. Thank you.

Sean Farrugia
Malta

For starting out in games programming, I can really recommend nothing better than* Blitz Basic II*, which is still available from Guildhall (01302 890000). We have run many tutorials on this excellent language, and there are still many newsletters and user-groups revolving around it.



***Blitz Basic* – full of commands and stuff and suitable for making games and utilities. It comes with a manual to tell you what they all mean too!**

Q'ED UP

I have a CD-Q drive plus hard drive for my A1200. Since the Q drive has CD32 emulation I bought seven CD32 games, *Little Devil, Microcosm, Premier, PGA Golf, Gunship 2000, Jungle Strike* and *Shadow Fighter*. Of the seven, only *Little Devil* and *Jungle Strike* would play.

With many games disappearing from the few Amiga advertisers left, I for one, would like to take advantage of the CD32 games, but I'm not prepared to buy them until I am certain they will work with an added CD drive.

There must be many like myself waiting for someone to serve up the definitive rundown on those CD32 games that will run on CD drives.

I ask therefore that instead of harping on month after month about what we might be lucky enough to see in the future, should we upgrade to the hilt, that you do something practical like tell us what CD32 games will work on our added drives, and do it now before the CD32 software disappears.

Traders might see their CD32 games gathering dust on shelves, this is not through lack of interest but simply through lack of information.

T. Alexander
via email

Well, I suspect the trouble is not with the games at all, but with the drive and/or the software used to drive it. I know for certain that Gunship *and* PGA Tour *will work fine from a normal CD-drive, on an A1200, using* AsimCDFS.

The "Q-Drive", as far as we can determine (because we never reviewed it, in spite of many requests for a review unit, we were never sent one) is non-standard in some ways. I'm afraid, as we don't have such a drive, we can't tell you what works and what doesn't. Perhaps some readers with these devices could write in and give us a definitive list.

GETTING CONNECTED

I am writing to all you Amiga owners out there who are feeling disillusioned, and are on the edge of buying a PC. I found myself in a similar situation – the market is all PC orientated, and Amiga resources and software seem to be on the wane.

For a long time I wanted to get myself connected to the Internet but in spite of all the helpful articles, the process seemed complicated and full of pitfalls. Very fond of my Amiga though I was, it seemed to me that the only seamless way to get online was to fork out £1500 for a PC and get the Internet ready version of Windows.

I didn't feel that I could justify spending any more money on my trusty old 1200, which already had a hard drive, and an extra 4Mb of fast RAM. I have access to a PC at work, and am used to Windows – although I don't like it. All the letters you get saying that Workbench is better are true!

Eventually, I just balked at parting with the dosh, and being a skinflint at heart decided to try the Internet the hard way, expecting heartbreak and sleepless nights as I tried to configure the software, and deal with an ISP who thought the name "Amiga" referred to a cheap Spanish wine.

So now to the point... if you're in the same situation go ahead and do it! It was completely trouble free, took me only a couple of hours to sort, and has transformed my ageing system into a truly remarkable connection to the rest of the world. I now have unlimited access to software, information, contacts, newsgroups, and other Amiga related stuff. When Bill Gates asks "Where do you want to go today?", suggest Aminet, there's no PC equivalent of the same calibre.

So, rush out, get *Miami* or *TermiteTCP*, (they are the easiest, even I got it right!). Try both *IBrowse*, and *Voyager*, which are excellent, easy to install, and so user friendly that you can read the manual later, to tidy up the finer points. Once you're on, you have access to all the comms software you'll ever need, for free, or for a small registration fee.

Even 33.6 modems are under £90 now including courier delivery, scan the ads in this mag!

Don't sell your Amiga, don't buy a PC, wire yourself up to the rest of the world!

Richard, Isle of Wight
via email

Thanks for sharing your experiences!

SPACE FARMING TIP

If anyone is having problems installing *Space Farming* onto their hard disk from *AFCD12*, load the file 'Install' on disk 1 into a text editor or word processor and edit some lines. Any 'SF_#1' or 'SF_#2' or 'SF_#3', delete the '#' to make 'SF_1' etc. Save it and the install script will now work. Great mag, shame about lack of *NewIcons*.

Mark
via email

Thanks for the tip. By the way – there are some NewIcons *icons on the CD we just don't add them wholesale.*



Just think, if you get connected you can spend all day looking at Ben!

ON THIS MONTH'S CD

The Gallery



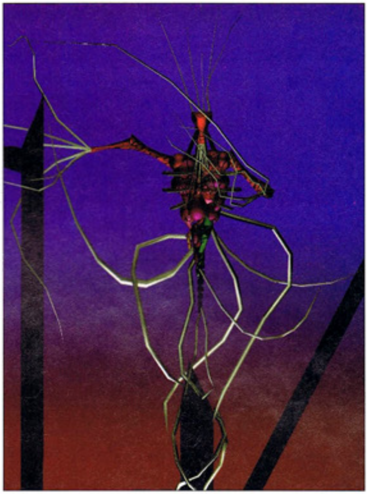
What's got eight leg's huge eyes and is hairy all over? I don't know but there's a great example of one on the *Amiga Format* gallery pages...
Fred MacKinnon **Bugly Spider**



Mark proves that with good texture maps you don't need huge quantities of polygons to make a great-looking image.
Mark Rowles **Racing Bike**



The grayscale version of this picture is on the CD too. The details are clearer in that, but we loved these purple tones.
Chris Haynes
Reservoir



Chris says he called this picture Yeuch! because that was most people's first reaction to it when he showed them. We know how they felt Chris.
Chris Boyle **Yeuch!**



I just hope that doesn't say anything rude in Japanese.
Darren Bentley **Mecha 2**



Lighting can make or break a picture and the backlighting on the saucer really gives it an impression of solidity.
C. A. Shaw **STC**

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AMIGA FORMAT COVER CD

It's got over 2500 directories and over 18,000 files. Yes, you guessed it, it could only be... *AFCD14*!

LOOK HERE 1ST!

Your first stop on the magical mystery tour of the *AFCD*. Here you'll find the *AFCD* setup script (double click on it to start it, double click on it to stop it) and the usual Ben_Speaks! and Submission_advice AmigaGuide files. To help you even further with sending stuff in to us, we've even put a readme template here so you won't even need to think about that either. Just double click on the ReadMe_Template icon and the text file will be loaded into Ed for you to edit. Your only difficulty will come when you save – you have to change the destination since you can't save to CD!

Our website section is getting beefier every month. We now have full permission from SASG to incorporate their website on our CD every month and we'll also be carrying Amiga Flame, the site that talks about new games for the Amiga.

Nick's Anim

AFCD14:-Look_here_1st!-/Nick's_Anim/rmn.ham8

Despite what it says on the icon, and what's Nick's written in his readme, this WCS animation is actually in HAM6, which means that all you ECS guys out there can still view it. Hurrah!

Indices

AFCD14:-Look_here_1st!-/Indices

This drawer contains list outputs for all our CDs so far. There's also two ASCII files with details of all the reviews done in *Amiga Format* since the beginning of time.

Lastly, there's the Amiga Angels list, but come on guys, if you're clever about the Amiga, tell us. Put yourself forward in the battle against ignorance and help someone less fortunate than yourself.



The moon! The moon! The moon! The moon! The moon! The moooon!

COVERDISKS

As the readme file in here tells you, you will be able to find the programs you are looking for in this directory scattered over the CD. However, as usual, the subs disk is in here.

READER PRIZES

The reader prize for a serious contribution this month just has to go to **Joe Zarb** for his back-breaking work on his guide to the AFCDs. The games prize goes to **Paolo Cattini** for his exemplary texture-mapped racing game *AFormulaOne*. Well done both of you, £50 will be winging its way to you very shortly.

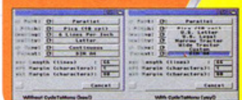
Spotlight on a handy tool

CYCLETOMENU

AFCD14:-Look_here_1st!-/Handy_Tools/CycleToMenu-2.1

CycleToMenu is very handy for those interminable cycle gadgets that programmers seem to like including. It converts cycle gadgets into pop-up menus that mean finding the option that you require is much easier. It also comes complete with a preferences program that allows you to set up these pop-ups in the style you choose. It's a great program that doesn't take much room in RAM or on your hard disk – everyone should use it!

With or without. It's up to you, but I know which I'd choose.



IN THE MAG

Game On!

AFCD14:-In_the_Mag-/Game_On!

In this drawer you'll find just some of the new games mentioned in this month's cover feature. From racing action in *Alien F1* and *Flying High*, to first person perspective shoot-em-ups in the form of *NEMAC IV* and *Trapped 2* and God game hijinks with *Battlecraft* and *Scions*. Go on, have fun! You'll also find a whole bunch of brand new screenshots from some up-and-coming Vulcan games in the AFCD14:- ScreenPlay-/Commercial/Vulcan drawer.



Declare war on your neighbours in Battlecraft.

Emulation

AFCD14:-In_the_Mag-/Emulation

The long-running emulators feature in *Amiga Format* goes from strength to strength and so too does its companion drawer on the CD. This month there's over 6Mb of emulators and emulation utilities for you to have a look at.

PD SELECT

This month we have some absolutely smashing demos from The Gathering '97. There's over 23Mb of AGA only coding for you to take a look at. Don't miss *The Black Lotus' Captured Dreams* demo (AFCD14:-PD_Select-/TBL-CD/TBL-CD.EXE) – it's amazing!

READER STUFF

We've got all sorts for you this month! What about:



Relive those haircuts, that makeup, those scripts! Ooh!

AFCD14:-ReaderStuff-/A_Vermeule/
Albert Vermeule's *Eagle from Space 1999* is superbly detailed and made for *Real 3D*. Albert has included all the bitmaps needed for texturing the object and even presents us with a beautiful render.

AFCD14:-ReaderStuff-/Chris_Haynes/FLister_V1.1
Chris has contributed loads of stuff to our CDs in his time, but this is a cracking uninstall utility written in *Blitz Basic*. It watches what files a program uses and ensures that when you want to get rid of it, you can get rid of it completely. Libraries and fonts left all over the place can now be a thing of the past!

AFCD14:-ReaderStuff-/Joe_Zarb/CDIndex.guide
Talk about comprehensive! Joe has sat down and manually catalogued our entire CD collection to date (including *AGA Experience* from *AF93*). He gives you version details, a short description and the location for every important file on every *AFCD* from 1-12. You can even search this enormous guide file if you install the aptly-named *SearchGuide* tool that he includes.

AFCD14:-ReaderStuff-/Martin_Bell/Dropship.iob
More 3D for you with Martin Bell's Dropship model for *Imagine* (good luck in your electoral contest Martin!). Martin's attention to detail is superb with brushes for the tiniest details like the eject marker on the side of the cockpit.

AFCD14:-ReaderStuff-/Mauro_Lourenco/Barravento
It's not often we give away a full commercial game, but that's what one of our readers has sent us. Barravento is a Brazilian martial art and this game was meant to be bundled with the Brazilian A600 pack, but never made it. If you can't get the game to run from the CD, just double click on the Extract_Barravento icon and have a disk ready to put into df0:



Schumacher might be in the lead now, but just wait...

AFCD14:-ReaderStuff-/Paolo_Cattani/AFormulaOne
Another game and this time one that's bang up to date. Paolo's *Formula One* game gets a well-deserved thumbs up from the Amiga Format team and is covered in the Game On! feature elsewhere in this mag. Nice one Paolo!



Timm's given us a good-looking front end, but he'll have to watch out for those samples.

AFCD14:-ReaderStuff-/Timm_Rutland/
Timm came up with his *MMExperience*-based menu system for the *AFCDs* a couple of months ago and got the Reader Contribution prize for his troubles. He's back this month with menu systems for the CDs 10, 11 and 12 (again, but revamped). Have a go with them and see what you think.

AFCD14:-ReaderStuff-/William_Harvey/
If you fancy putting your A1200 in a tower case, you can read Bill Harvey's guide on how it's done. He's bought a tower case for his A1200 and fitted a hard drive and CD-ROM, so you know he knows how to do it...

SCREENPLAY

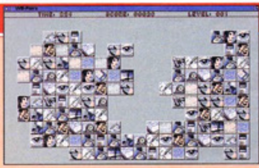
Reality games
AFCD14:-ScreenPlay-/Commercial/CharlieChimp97
AFCD14:-ScreenPlay-/Commercial/Great_Escape
AFCD14:-ScreenPlay-/Commercial/Wrath_of_Gwendor
These drawers contain three games created using the *Reality* system from BPM. They are commercial so don't go giving them to anyone, but play them and you'll see the power of the creation engine behind them.

Vulcan Previews
AFCD14:-ScreenPlay-/Commercial/Vulcan
Vulcan are going great guns with all their new developers busy beavering away on titles for the Amiga. In this drawer you'll find a whole bunch of screenshots and demos of some of the games they'll have coming out soon.



Oh, if I had a hammer...

WB-Pairs
AFCD14:-ScreenPlay-/Shareware/wb-pairs
Pairs is a game we put on our CD a while back. It was great, but only suitable for AGA Amigas running a big screenmode. Frank Böttcher (Ricky!) obviously didn't like this limitation either, so he wrote a Workbench-friendly version of the game. It's exactly the same as Thomas Lenz's original and just as addictive, but it runs on any 8-colour Workbench.



No, look, down there, two eyes! Go on! Quick! You're running out of time!

Boum
AFCD14:-ScreenPlay-/Shareware/Boum
Minesweeper games come in all sorts of variations but few are as small as *Boum*. In only 15k you have three different levels of difficulty and three different playfield sizes. There's not much to the game, but it's done well.



Darn! I should have guessed that it would be under that block.

Soliton
AFCD14:-ScreenPlay-/Shareware/Soliton
Soliton is your bog standard patience game, only it's better. It needs MUI to work, so if you haven't already installed it go and do it now! You'll also want to run it on its own screen since it looks best with quite a few colours. If you don't like the default set of cards, there's always the extra cardsets that we provide in the same drawer.

Hard Drive Installers
AFCD14:-ScreenPlay-/Utilities/HD_Installers
We have 24 different hard drive installers on this month's CD. For titles ranging from *Afred Chicken* to *Zool* they should all help to make things easier for you. Why the games' manufacturers couldn't do this for themselves is beyond me, but there you go.

SERIOUSLY AMIGA

Art Effect stuff

AFCD14:-Seriously_Amiga-/Commercial/ArtEffect

Art Effect is now up to v1.5 and if you haven't yet been tempted to get yourself a copy of it, why not try out the demo that lurks in this drawer? For those of you that have bought v1.0 or 1.1, you'll find some patches here to bring you up to v1.5 in no time at all. There's also some new graphics for the toolbox, drivers for scanners and a couple of freebie plug-in effects.



New and improved *Art Effect* even gives you a seamless tile texture.

Graphics card updates

AFCD14:-Seriously_Amiga-/Shareware/GFXCard

If you look in this drawer, you'll not only find all the latest versions of *CyberAVI*, *CyberQT* and the *RTGMaster* library, but also the current revisions of *CyberGraphX 2* (v2.24) and *Picasso96* (v1.16).

AHI

AFCD14:-Seriously_Amiga-/Shareware/Hardware/AHI

AHI is to sound what RTG is to graphics on the Amiga. The only difference is that you don't need a sound card to take advantage of AHI. It puts a bunch of drivers into your Workbench Devs drawer, suitable for not only good ol' Paula, but also for HiSoft's Aura and MacroSystem's Toccata card. Now you can set in preferences for the sort of sound output you want and any program that is AHI aware will give you all its sound output through the device you have chosen. At the moment, the main programs to take advantage of AHI are games, but as sound cards become more popular the use of AHI will also increase.

Scanner drivers

AFCD14:-Seriously_Amiga-/Shareware/Hardware/ScanCenter
AFCD14:-Seriously_Amiga-/Shareware/Hardware/Scantek/Scantek
AFCD14:-Seriously_Amiga-/Shareware/Hardware/ScanTrax/ScanTrax

These programs drive various scanners from different companies:

ScanCenter	HP SCSI scanners (German Only)
ScanTek	Microtek, Highscreen and Mustek
Scantrax	HP SCSI scanners (German Only)

HTML add-on

AFCD14:-Seriously_Amiga-/Shareware/Programming/MCC_HTMLtext

This is a great MUI custom class add-on. Just use the installer and you will get a text viewer like *More* – only it reads HTML files. As the author says, the custom class is at an early stage and doesn't support every kind of tag, but if you want to add easy HTML viewing to your program, I can't think of a better way to do it!

RDPrep

AFCD14:-Seriously_Amiga-/Shareware/Hardware/RDPrep/RDPrep

For all you 1200 owners out there that don't have access to Commodore's *HDToolbox* program, here's the latest version of the next best thing – MicroBotics' *RDPrep*.

ASCII Art Pro

AFCD14:-Seriously_Amiga-/Shareware/Graphics/AsciiArtProV4/AsciiArtPro4

Ever wondered how those "scene" guys do all those ASCII logos? Well, they probably use something like *ASCII Art Pro* to do the job for them. This package allows you to "draw" in ASCII and will also convert an IFF picture. Give it a go.

Virus Checkers

AFCD14:-Seriously_Amiga-/Shareware/Virus/AntiBeol_13
AFCD14:-Seriously_Amiga-/Shareware/Virus/VirusWorkshop
AFCD14:-Seriously_Amiga-/Shareware/Virus/VirusZ
AFCD14:-Seriously_Amiga-/Shareware/Virus/Xtruder

I wonder if there's a new virus on the loose? It does seem odd that all these Virus Checkers get updated at roughly the same time, but you're the ones that benefit. You really can't afford to be without one and here there's a selection for you to choose from.

Executive

AFCD14:-Seriously_Amiga-/Shareware/Workbench/Executive_V2.10

Many of you will be the kind of Amiga user that has enough horsepower and memory to run lots of programs all at once. But sometimes you will find that program a slows down program b too much while you're using program b and waiting for program a to finish. If this is the case then *Executive* is the program for you.

OK, it's a little bit complex to set up, but it does offer you the power to give program a and program b the priority they should have, as and when you want them to have it. See?

Datatypes

AFCD14:-Seriously_Amiga-/Shareware/Workbench/akJFIF-Datatype
AFCD14:-Seriously_Amiga-/Shareware/Workbench/akLJPG-Datatype
AFCD14:-Seriously_Amiga-/Shareware/Workbench/akPNG-Datatype
AFCD14:-Seriously_Amiga-/Shareware/Workbench/akSVG-Datatype

Roll up, rollup! Get your latest datatypes 'ere! Get 'em while they're 'ot! Here you go, we got JPEG, we got PNG, we got Superview, we got the lot. Roll up! Roll up! Two fer a pahnd!

DISC NOT WORKING?

If your *AFCD* is defective, please return it to the address below. Please make sure you have followed our installation procedures correctly to ensure that there is a physical problem. Please send the *AFCD* along with a description of the fault (not forgetting your name and address). A new working version should be returned to you within 28 days. The return address for faulty discs is: PC Wise Ltd, Dowlais Top Business Park, Dowlais, Merthyr Tydfil, Mid Glamorgan, South Wales C48 2YY.

Your *AFCD* should only need replacing if the CD itself cannot be read. If, instead, you are experiencing problems with an individual demo or application, phone our technical support line. This is open between the hours of 2pm and 5pm every Tuesday.
Tel: 01225 442244. Fax: 01225 732341.
email: amformat@futurenet.co.uk
(put "Coverdisk" in the subject line of your message to ensure it is processed swiftly).

Please note that the helpline staff provide assistance with technical problems directly related to our cover CD and cannot provide training on the software or hardware in general.

READER WARRANT

Every reader submission to the *AFCD* must have a reader warrant attached to the accompanying AF_Readme file. You can type it in off this page or take it from the various locations it is stored in on the CD (Look_here_1st!, ReaderStuff etc). A last reminder: this text must be in your AF_ReadMe, or your submission won't go on the CD – it's Future policy.

In respect of all material which forms my reader contribution to Future Publishing's *Amiga Format* I hereby warrant that:-
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(2) the material does not contain any material which is defamatory, obscene or indecent and is exempt from classification under the Video Recordings Act 1984;
(3) that there are no legal claims against the material provided;
(4) that I have full power and authority to provide this material to Future Publishing.

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AMIGA FORMAT COVERDISKS



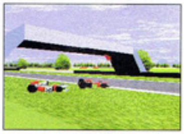




Create your own animations with *AGA Morph* plus three other utilities to enhance the power of your Workbench.





David Taylor introduces three great new game demos that prove conclusively Amiga gaming lives on!

Almagica

Scions of a Forgotten World

There may have been a shortage of Amiga games recently but all that looks set to change – see our feature on page 18. To show you just what you've got to look forward to we've included three new game demos from the feature for you to try out.

The first game is called *Scions* and requires an A1200 with a hard drive to play. It's an amazing *Dune II*-type game that has proved very popular in the office. With *Command and Conquer* showing the way on the PC, the Amiga has been sadly lacking since *Dune II*, but this game looks set to change all that.





The game is still an early demo, but it's already very playable and has the essence of great gameplay.

When you start the game, you have access to a few farmers and militia units. Each unit can be controlled by clicking on it and selecting an order. Farmers harvest wood and mine gold. Militia protect your citizens and property and attack the enemy. To win a level, you must remove all of the enemy units.

Obviously winning the level means that you need to get more units. To do this you need to select the farmer and send him off to harvest wood. When you click on a unit a set of icons appears; move the mouse over an icon to see what it does. When you have some wood, you can build a farm – just click on the farmer and select the Build option. Building a farm will make your population grow and this will give you the chance to train up another unit. Get another farmer and you can then set one to harvest wood and the other to mine. It's a good idea to have militia patrolling the area while you go to the woods and mines or the enemy may kill your citizens.

When you have a few more farmers, build a Blacksmith so you can train up militia and archers. You should also think about building more than one farm so that your population grows more quickly. You'll notice that your money is used up much faster than timber, so you can set two miners to one harvester and you should have enough resources available to build whatever you need.

With your town set up like this, you should have a fairly stable economy and you can train up lots of militia so you can win the level. Archers are only capable of attack, but militia can be set

Alien F1

So you want racing game with amazing graphics? Alien Formula One is just that and it is amazing. It does require an AGA Amiga, but it can be run from a floppy disk. To do so, you must first boot Workbench and then load it from there. If you install it to a hard drive, then you need to make an assign for the data disk of AF1_data wherever you install to.

The game is very simple – race against the other drivers. At the moment the controls are rudimentary. You use the mouse to steer and accelerate with the right mouse button and brake with the left. There are also a set of keyboard controls, although we have had the game freeze when we pressed the Escape key, so it's best to avoid it. Here's a quick guide to the other keys:

F1 This will disable the VirtuaCockpit(tm) features; if you own a slow slow sloooow Amiga, probably that will speed up a bit the game. In the future, when you press this key, a pre-painted cockpit will appear; in this demo, the cockpit will simply disappear!
F2 Blocks the driver's head (i.e. blocks the cockpit)
F3 Frees the cockpit allowing for driver's head movement
F4 Activates the Outside View mode
F5 Only present in this demo and only for test reasons – will sometime cause an opponent to crash
F6-F7 In the Outside View mode this selects the car to follow
F8 Displays some info (Laps, Lap-Times, Position, etc.)
F9 Displays some more info
F10 Cancels info
HELP Enter Instant Replay mode: the screen will flash slowly in yellow to remind you that you are seeing the last 40sec. of the race (you can, of course, change view, enable/disable the VirtuaCockpit, etc.); pressing the RIGHT cursor key while in Instant Replay mode will fast forward the replay, while pressing the LEFT cursor key will freeze the current frame as long as you keep the key pressed
DEL Exit Instant Replay mode
R Restore the car: if you find yourself spinning on the grass, press this
Q Quit the game
UP-DOWN Arrow Keys Select Gear
M Enable multitasking: multitasking is disabled for default, to gain speed
N Re-disable multitasking


This game has amazing textures and real-time 3D rendering thanks to the author's own game engine.

It will take you a bit of time to get used to the car's controls and you'll end up spinning off the track when you first play it, but take your time and you will get the knack of it. You should note that this game is also an early demo and the author is looking for people to help design tracks and more. Read the readme file through if you think you can help and hopefully this will enable the author to bring a final version of the game to the Amiga.

to patrol and guard as well. These units are not completely stupid and will attack enemy units if they come across them.

Now just explore the rest of the map to find and destroy the enemy. Whenever a unit moves over uncharted terrain it will become visible. You will now see more of the map, but you only see the real time contents of a square when you have a unit close to it. This is why some squares look more visible than others. Enemy units will move undetected through squares that you aren't monitoring, so you need to move around constantly to keep the map updated.

If you want to move an army of units, you can select more than one by clicking the left mouse button and dragging out a square over all the units. They can now be controlled as a single unit and sent off together.

When you come across the enemy town, you can attack the units and the buildings. Obviously destroying buildings stops the enemy building more units, which increases your chances of winning.

When you win a level, you will be given a code so that you can jump straight there. When the game starts simply type in the code to go to that level.

SOLITON


The Soliton game shows how professional a card game can be. If you want a quick hand, then this is for you.

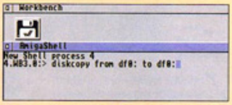
The graphics in this game will simply blow you away. It's a simple *Solitaire* card game which loads through and plays on Workbench, but the whole game is put together very slickly and has all the options you'd expect to see. You can use different card sets and change everything through the MUI preferences.

BACKING UP YOUR COVERDISK

Copying your Coverdisk is really very simple. Just follow the stages below...

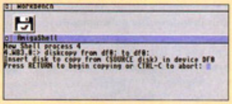


1 Boot up with your Workbench disk and find the Shell icon, in your system drawer. Double-click on this to go into the Shell.

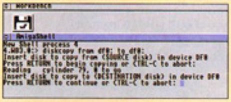


2 Type in the following line (with a zero, not the letter O), taking care to put the spaces in the correct places:

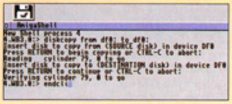
DISKCOPY FROM DF0: TO DF0:



3 When asked for the Source disk, insert your write-protected Coverdisk and press Return. All of the info on this disk will then be copied from the disk into memory.



4 Once your Amiga has read the info, it will ask for the Destination disk. Insert it and press Return. All information on this disk will be destroyed.



5 On an unexpanded machine, the Amiga may ask for the source disk again, because it copies in chunks. Finally, type endcli to close down the Shell.

DISK NOT WORKING?

We take every care to test the Coverdisk software, but Future Publishing cannot accept any responsibility for any damage occurring during its use. If your disk is faulty, send it back, with 2x26p stamps and an SAE to:

Amiga Format (insert name of disk)
TIB PLC • TIB House
11 Edward Street
Bradford • BD4 7BH

If there is a manufacturing error the stamps will be returned with a replacement disk.

AGA Morph

David Taylor shows you how to make some really stunning animations with this month's Coverdisk giveaway.



You may already have come across morphing functions in paint packages. These enable you to create low level morphing animations, but when you get to grips with this powerful package, you'll be able to create really stunning ones.

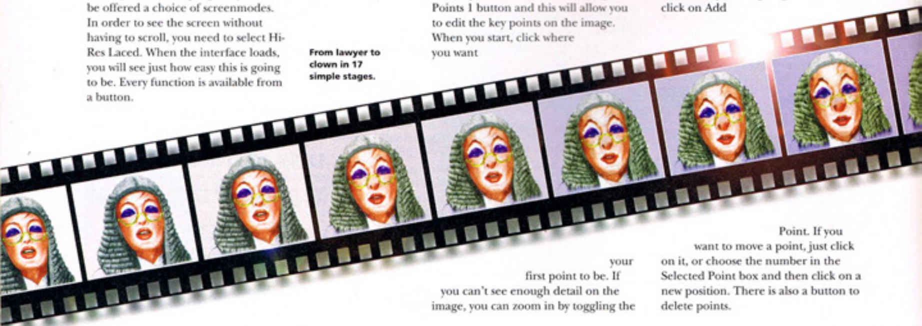
Morphing is a technique used heavily in today's film industry and made popular by blockbusters like Terminator 2. It involves the merging of one image into another. This is done using two very separate parameters with a set of frames between the start and end image. These frames gradually change the first image into the last by moving pixels from key points on one image to key points on the other. At the same time the actual look of the image (the colour of each pixel) is gradually changed to that of the second.

AGA Morph requires an AGA machine and you really need a fast processor, because rendering times are extensive. When you have unpacked the Coverdisk, you need to install the package.

GETTING STARTED

When you load the program you will be offered a choice of screenmodes. In order to see the screen without having to scroll, you need to select Hi-Res Laced. When the interface loads, you will see just how easy this is going to be. Every function is available from a button.

You need to load in the start and end pictures and then you can start to set the points. Click on the Change Points 1 button and this will allow you to edit the key points on the image. When you start, click where you want your first point to be. If you can't see enough detail on the image, you can zoom in by toggling the Zoom on using the button in the right hand bottom corner. When you know where the point is going to be, click on Add Point. If you want to move a point, just click on it, or choose the number in the Selected Point box and then click on a new position. There is also a button to delete points.



From lawyer to clown in 17 simple stages.

WORKBENCH ENHANCEMENTS

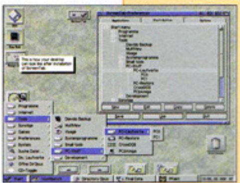
As well as the powerful *AGA Morph*, we also have three other programs that every hard drive user should have on their system. *MultiCX* and its preferences program (which requires MUI) adds masses of functions to Workbench. The program loads up all the changes when you double click on it, but doesn't have its own interface, which is why you need the *Preferences* program. If you don't want to use that, you can set the parameters manually in the Icon ToolType. It is much easier to use the *Preferences* package though, which allows you to see each option and select it, changing any settings with a slider. You'll need to have MCX running first.

You can change mouse acceleration, window appearance, disk access, wild cards and much more. It is essentially a single program that does more than a whole batch of commodities could. Ideally it should be placed in your WBStartup drawer so it loads every time you boot.

Remember that the package is Shareware and if you like it you must register. Send $15 (about £10) to Martin Berndt, Fr.-Alfred-Str. 115, 47226 Duisburg, Germany.

ScreenTab 3 is another Shareware utility. It adds many features including keyboard shortcuts for screen swapping and a complete Start menu bar for launching programs.

You need MUI for its preferences too, but like *MCX*, the main program doesn't require it. To register, send $10 (about £7) to Michael Link, Krummenackerstrasse 171, 73733 Esslingen, Germany.



ScreenTab adds lots of new features into Workbench, including a *Win95*-like Start menu.



The *MultiCX Preferences* program uses MUI and allows you to change the parameters very easily.

CREATING THE EXAMPLE ANIMATION



Load in the lawyer image as picture 1 and the clown as picture 2. Now load in the Lawyer>Clown points. These are the points already created for the animation.



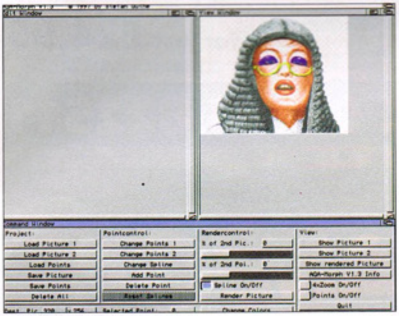
Now change the size of the destination picture to the correct resolution – 240 x 192. Set the percentages to 5 and 10 respectively. Don't forget to change this to 1 and 2 if you are going to ping-pong.



Render and save each frame. As you approach the end – when the percentage of second points is at 90, change the ratio so the final 10 percent is done in single points. This way the image points will do most of the moving and then slow down. The image will change into the clown closer to the end.



Load each image into an animation package like *PPaint*. You will need to add a frame for each new picture. The output images are 24-bit so *PPaint* is ideal as it will re-map the images as it loads them. Make sure you keep loading at the "Current Format" so the image isn't stretched. Save the animation and play it. Cool, huh?



The *AGA Morph* package is very powerful but easy to use, and creates 24-bit frames for your animation.



When you've added in all the points it's a good idea to save them. You now need to add in all the points on the second image. Click on Change Points 2 and you can start editing. There will be the same number of points that were on the first image. To select a point, type in its number in the Selected Point box and then click where you want it to be.

Type in a new point number and the previous point position will be confirmed. Bear in mind that the pixels from the first point on the first image will be moved to the first point on the second image. If you place the points incorrectly or so that they cross, the animation will not look right. When you have all the points set correctly, save them again.

MORPHING TIME

You now need to set the parameters for the first frame. Change the Destination picture size to the same as your source images – unless you do want a stretched image. Then choose how much of the second image will be used in this frame and how much the points will be moved towards the second points. You should not use too much of the second image in the frame – a good trick is to keep the ratio of second points to second picture percentage at 2:1. So you can set the percent of second image to 5 and the percent of second points to 10. If you are going to create a ping-pong animation (where it plays forward and backward), you should render the first frames at a lower percentage, changing the percent of the image by 1 and the percent of the second points by 2. This is opposite to the norm, but it is because at either end of the animation the biggest change is in the actual image.

When you are ready, click on Render picture. A progress bar will come up and when it's finished the result will be shown in the right hand window. Save the image and change the percentages.

The program doesn't render an animation in one go, but the separate frames – it is because of this that you have so much control.

When the set of frames has been created, you can string them together in a paint package. *Personal Paint* which was given away with *AF96* would be ideal. Why not send in some of your efforts for inclusion on our CD?

Note that this package should be registered if you use it regularly. The author asks for $15 (about £10) and it can be sent to Stefan Guthe, Markgrafenweg 30, 72213 Altensteig, Germany.

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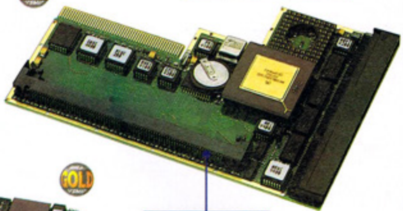
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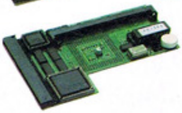
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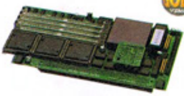


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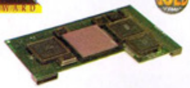
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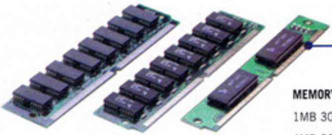
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